PBS | Engineering + Environmental

Lead-Based Paint Inspection and Risk Assessment Report

1333 164th Place NE
Bellevue, Washington

Prepared for:
Deborah McCaslin
King County Housing Authority
625 Andover Park West
Tukwila, WA 98188

June 2012
Project No. 40573.077

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LEAD-BASED PAINT INSPECTION AND RISK ASSESSMENT

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1333 164th Place NE
Bellevue, Washington

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SUPPORTING DATA

1.0 IDENTIFYING INFORMATION

BUILDING DATA

1333 164th Place NE
Bellevue, WA

CLIENT DATA

King County Housing Authority
625 Andover Park West
Tukwila, Washington 98188

Attn: Ms. Deborah McCaslin

SCOPE OF ASSESSMENT

On June 21, 2012, PBS Engineering + Environmental (PBS) conducted a lead-based paint inspection and risk assessment in accordance with the U.S. Department Housing and Urban Development (HUD), Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing. The single family residence at 133316th Place NE, Bellevue, WA was the subject of the inspection.

CERTIFICATIONS

Risk Assessor

Janet Murphy
State of Washington
Department of Community, Trade and Economic Development
Risk Assessor Certification No: 0258 Expiration Date: 3/8/2013

Janet Murphy
Signature

June 29, 2012
Date

Certifying Firm

PBS Engineering + Environmental
2517 Eastlake Avenue East
Seattle, Washington 98102
Telephone: 206.223.9639

Certification No: 0178
Expiration Date: 9/3/2012

Certified Laboratory

NVL Laboratories, Inc
4708 Aurora Avenue North
Seattle, Washington 98102
Telephone: 206.547.0100

AIHA NLLAP Certification No: 101861

2.0 LEAD PAINT INSPECTION

2.1 Site Information

The building is of wood construction with gypsum interior walls and ceilings. The exterior is wood siding with wood window and door frames. There are three bedrooms, one bathroom and kitchen. The building is in good condition.

The majority of the interior surfaces are painted. Walls and ceilings are painted gypsum wallboard. Built-in cabinets in the kitchen are wood with brown varnish. The exterior wood siding and soffits are painted tan. Window and door frames are painted green or white.

2.2 Lead-Based Paint Inspection

The presence of lead in paint was determined through x-ray fluorescence spectroscopy.

2.2.1 XRF Sampling

A handheld INNOV-X Systems Inc. X-Ray Fluorescence Analyzer (XRF) operating in lead paint mode was used to perform a surface by surface lead paint inspection of each selected unit and building.

HUD and Environmental Protection Agency (EPA) have set 1.0 milligrams per square centimeter (mg/cm^2) as the threshold limit for lead-based paint as determined through X-Ray Fluorescence (XRF) testing. HUD and EPA have set 5,000 parts per million (ppm), or 0.5 percent by atomic absorption (AA) laboratory analysis as the threshold limit for lead-based paint. Paint that is known to contain lead levels less than those described above does not have to be evaluated, although all deteriorated paint (paint surfaces in poor condition) should be repaired because it may contain lower levels of lead that may contribute to lead dust or lead contaminated soil hazards.

All calibration readings were within the tolerance for this instrument. No substrate correction is required with the INNOV-X Systems XRF per the instrument's performance characteristic sheet.

The "Side" information presented on the XRF data sheets is in relation to the side of the rooms, or building exteriors where the XRF test spot is located. The inspector/risk assessor used the side with the posted address for each residence as the basis to establish side "A". Sides B, C, and D follow in clockwise rotation. The side with the posted address is used to establish Bedroom 1. The other bedrooms follow in a clockwise rotation.

Please refer to the XRF sample data table for the complete list of XRF samples located in Tab 1.

2.3 Components with Lead-Based Paint

Lead was found in painted components above the HUD level of $1mg/cm^2$ by XRF or 0.5% by AA on the gutters of the residence (See XRF Spreadsheet).

2.4 Deteriorated Lead-Based Paint Surfaces

Surfaces with lead-based paint were in an intact condition.

3.0 LEAD-BASED PAINT RISK ASSESSMENT

3.1 Locations and Types of Lead Hazards Identified

Lead-based paint was found on the gutters at the roof line. The paint was in an intact codition.

3.2 Dust Sample Results

The purpose of dust sampling is to determine the lead concentration in settled dust. Dust is an important pathway for childhood exposure to lead. Children can be exposed to leaded dust by inhalation or ingestion. Ingestion of leaded dust is a common pathway during normal hand to mouth activities involving their fingers, or toys that that have come in contact with leaded dusts. Wipe sampling is the recommended method for collecting surface dust samples. Dust samples are typically collected from floors near friction and impact spots or areas of deteriorated paint, interior window sills, and window wells. Cabinets, shelves, and table tops may also be sampled if there is reason to suspect a surface dust hazard may exist caused by friction, impact points, or from areas of deteriorated paint nearby.

Dust wipes were collected in accordance with EPA 747-R-95-001, Residential Sampling for Lead: Protocols for Dust and Soil Sampling. All wipe samples were analyzed using EPA Method SW846-7000B, Flame Atomic Absorption.

HUD has established the following threshold limits for lead in settled dust in target housing: 40 µg/ft^2 on floors, 250 µg/ft^2 on window sills, and 400 µg/ft^2 in window wells.

Results of the single surface dust sampling conducted during this assessment revealed lead concentrations below EPA/HUD lead standards indicating that lead hazards do not exist as discussed above. The following table lists the locations and findings from lead dust wipe sampling.

SAMPLE NO.	LOCATION	SURFACE	LEAD (µg/ft^2)
40573.077-W1	Bedroom 1, entry	Floor	<19.0
40573.077-W2	Living room, front entry	Floor	<19.0
40573.077-W3	Kitchen, back entry	Floor	<19.0

Lead wipe sample inventory and lab reports are located under Tab 1.

3.3 Soil Samples

Composite soil sampling was conducted around the foundation or “drip line” of the house. The soil samples were collected in accordance with EPA 747-R-95-001, Residential Sampling for Lead: Protocols for Dust and Soil Sampling. All samples were analyzed using EPA Method SW846-7000B, Flame Atomic Absorption.

The EPA/HUD threshold for bare residential soil is 1,200 parts per million (ppm) and for child’s play areas is 250 ppm.

Analysis of the composite soil samples collected from the exterior drip lines of selected buildings revealed lead in soil below the EPA/HUD threshold for bare residential soil. Lead soil sample chain-of-custody and lab reports are located under Tab 1.

PBS inspected the property for areas of bare soil in excess of 9 SF. Areas of bare soil were not present. There were no playground areas on the property for soil sampling.

SAMPLE NO.	LOCATION	LEAD (ppm)
S1	Composite from drip line	<32.0

4.0 LEAD HAZARD CONTROL

4.1 Definitions

Lead-based paint was identified on this property in an intact condition. Analysis of dust wipe, and soil samples resulted in lead concentrations below the HUD reporting limit.

4.2 Program Development

A hazard control program is not required to be established for this property

4.3 Lead Hazard Control Recommendations

No lead hazards were observed during this assessment. However, it is possible that lead hazards could develop at this site that did not exist at the time of this assessment. In order to prevent hazards from developing, PBS recommends that any new paint added to the buildings be lead-free.

4.4 Notification of Results of the Risk Assessment

The Owner should provide results of this report to the residents in the dwelling. The Owner should explain to the residents:

1. No lead hazards were identified at the property.

2. Provide a copy of the EPA brochure; Protect Your Family From Lead In Your Home located in Tab 2 to the residents.

4.5 Renovation Projects

The EPA requires persons performing renovation work that will disturb lead-based paint to provide building occupants with information about lead hazards. The Pre-Renovation Lead Information Rule (PLIR), also known as section **406(b)** of the **Toxic Substances Control Act**, is a rule requiring people performing renovation for compensation to distribute a lead hazard information pamphlet prior to commencing the renovation.

If your job is for compensation and will require you to disturb more than 2 ft^2 of paint in pre-1978 housing, then you are a renovator for the purposes of PLIR. This is not dependent upon whether what you do is typically considered a renovation. Whether you are a plumber, a drywaller, a painter, or an electrician, if your job requires that you disturb more than 2 ft^2 of paint, then you must comply with PLIR.

The term compensation extends beyond money. Providing services in exchange for other services (e.g., bartering) is included within the term. PLIR applies to owners renovating their own apartment buildings using maintenance staff as well as neighborhood handymen providing services to those in the neighborhood for services or goods other than money. Work that is performed for free (e.g., no exchange of money, goods, or services) or work performed by Do-It-Yourselfers in their own homes is not covered by PLIR. Work that is performed during an emergency (i.e., a hazardous, non-

routine situation that could either threaten public health or cause substantial property damage) is also excluded from this rule.

A copy of the EPA handbook, The Lead-Based Paint Pre-Renovation Education Rule for contractors, property managers, and maintenance personnel is located under Tab 2.

The EPA provides "Pre-Renovation Education Advisor" to assist in understanding the regulations and how they apply to specific situations. It can also be found at: http://www.epa.gov/opptintr/advisors/406b/

4.6 Regulatory Overview

Current lead-based paint regulations establish standards for certification, hazard levels, occupant education, disclosure, and occupational exposure to lead. The following regulations apply to lead-based paint activities in Washington.

Environmental Protection Agency (EPA) 40 CFR Part 745:

- **402/404** ensures that individuals conducting lead-based paint abatement, risk assessment, or inspection are properly trained and certified, that training programs are accredited, and that these activities are conducted according to reliable, effective and safe work practice standards.

- **403** established standards for lead-based paint hazards and lead dust cleanup levels in most pre-1978 housing and child-occupied facilities.

- **406** Ensures that owners and occupants of most pre-1978 housing are provided information concerning potential hazards of lead-based paint exposure before certain renovations are begun on that housing.

- **1018** Requires disclosure of known lead-based paint and/or lead-based paint hazards by persons selling or leasing housing constructed before the phase out of residential lead-based paint use in 1978.

Occupational Safety and Health Administration Rules (OSHA) 29 CFR:

- **1926.62** OSHA regulations which address occupational exposure to lead in the construction industry.

- **1910.1025** OSHA regulations which address occupational exposure to lead in general industry.

State of Washington Department of Community, Trade and Economic Development. Washington Administrative Code (WAC) 365-230.

- Addresses certification of individuals and firms engaged in lead-based paint activities and work practices.

4.7 Ongoing Monitoring

4.7.1 Program Description

Ongoing monitoring is required unless all lead-based paint is removed from a building and a certified risk assessor has determined that no lead-based paint hazards exist. Even in situations where lead-based paint hazards have been controlled and spaces have successfully passed clearance testing, the possibility that controls may fail or that previously intact lead-based paint may deteriorate necessitates the need for ongoing monitoring programs. Ongoing monitoring includes two types of activities. These are reevaluation and annual visual surveys.

4.7.2 Reevaluation Schedule

Reevaluations are conducted at specific intervals as described in Chapter 6 of the HUD Guidelines. These schedules can also vary based on the specific action taken to address identified lead-based paint hazards or lead-based paint.

According to the Guidelines, this property should be reevaluated in 6 months to 1 year. Additionally, reevaluations should occur following lead hazard control activities or prior to reoccupation of the buildings. If interim controls are used to address the lead-based painted components they should be visually inspected at least annually.

If all identified lead-based paint is removed from the property, then no reevaluation or annual visual inspection need be scheduled.

Annual Visual Surveys

Reevaluations are supplemented with visual surveys by the Owner or the Owner's representative and should be conducted at least once per year. The annual survey is intended to monitor the condition of all known or suspected lead-based paint and control methods or structural problems that can cause lead-based paint to become deteriorated or contribute to hazardous dust levels. If the Owner receives information that a condition has arisen that could create a hazard, additional surveys should be conducted. If a hazardous condition is discovered interim control measures should be implemented until the source, or cause of damage is repaired or eliminated.

Standard Reevaluation Schedule for 1333 164th Place NE, Bellevue, WA Site

Schedule	Evaluation Results	Action Taken	Reevaluation Frequency And Duration	Visual Survey (by owner or owner's representative)
5	No leaded dust or leaded soil hazards identified but lead-based paint identified	Clean up paint chips and repair any damage	2 Years	Annually and whenever information indicates a possible problem
		Clean up paint chips and repair any damage	3 Years	Annually and whenever information indicates a possible problem

Schedule	Evaluation Results	Action Taken	Reevaluation Frequency And Duration	Visual Survey (by owner or owner's representative)
		Clean up paint chips and repair any damage	4 Years	Annually and whenever information indicates a possible problem

4.8 Operations and Maintenance (O&M)

4.8.1 Recommended Changes to Work Order System and Property Management

The presence of lead-based paint should be considered in all repair and maintenance work that disturbs building components with lead-based paint. If painted surfaces will be disturbed during a particular repair job, the painted surface should be tested to determine if it has lead-based paint on it, unless it has been tested previously by reliable testing. The results in this report indicate that lead-based paint is present in various locations in the buildings.

The Owner should tell residents to report any paint that is peeling, chipping, flaking, chalking, or otherwise deteriorating so that is can be repaired quickly and safely.

If lead-based paint is present (or is suspected to be present) in designated work areas, the maintenance worker should take the necessary precautions required by applicable regulations. Listed below are a number of training providers who can train the maintenance workers to handle lead-based painted surfaces safely.

If residents are present, the work areas should be sealed off so that leaded dust does not enter the living area, or the residents relocated temporarily if the scope of work is large. According to information supplied by the Owner, paint chips are now cleaned up by sweeping. Mopping or other wet cleaning should be used instead and in conjunction with a HEPA filtered vacuum cleaner for routine use to clean up dust and debris that may be generated.

The practice of examining the condition of the paint semi-annually or upon vacancy is a good one and should be continued. Those conducting the examination should also be trained to evaluate the condition of painted surfaces with regards to HUD and EPA requirements for visual examination of painted surfaces, such as those presented in Tab 2 of this report. Once trained in visual examination techniques, those personnel could then conduct the annual visual surveys in accordance with the Reevaluation Schedule presented in Section 4.0 of this report.

Establish a routine maintenance activity to inspect and clean up any new visible paint chips, and repair areas of newly damaged paint. This activity should be

accomplished at least every twelve (12) months and could be incorporated as part of the annual visual surveillance.

4.8.2 Operations and Maintenance Program Recommendations

Program Content

A comprehensive lead Operations and Maintenance Program for the day-to-day maintenance of this site should be implemented.

A lead O&M Program should contain the following:

- Policy Statement & Summary
- Program Administration and Resources
- Known or Presumed Lead Hazard Sources
- Periodic Visual Surveillance (12 months or unit turnover)
  - Prompt and systematic repair of damaged paint
- Maintenance Practices
  - Designated personnel
  - Personnel training
  - Work protection and equipment
  - Work order system
  - Work practices
  - Prohibited activities
  - Occupant protection plan
- Cleaning Practices
- Occupant/Tenant Relations
  - Provide basic generic lead-based paint hazard information as per regulations
  - Notify tenants of lead-based paint operations
  - Provide system for tenants to report deteriorating paint
  - Recordkeeping

Lead O&M activities are limited to small-scale projects relevant to the general operation and maintenance of the apartment units. A lead O&M program requires standard work practices for maintenance activities that may disturb lead paint of building components and lead contaminated soil or dust. All work operations that disturb lead paint require controls designed to minimize the generation of lead dust/debris and protect the occupants and workers.

The HUD Guidelines classify common maintenance tasks in “high risk” and “low risk” work operations. High risk operations typically disturb more than two square feet of lead-based paint per room, e.g., surface preparation with sanding or scraping, plastering or wall repair, carpet replacement, or welding on painted surfaces. Low risk operations include windowpane replacement, grounds keeping, and door repair. See the table below for the HUD summary of work operations.

Low- and High-Risk Job Designations for Surfaces Known or Suspected to Contain Lead-Based Paint

Job Description	Low Risk	High Risk*
Repainting (includes surface preparation)		X
Plastering or wall repair		X
Window repair	X	
Windowpane or glass replacement only	X	
Water or moisture damage repair (repainting and plumbing)		X
Door repair	X	
Building component replacement		X
Welding on painted surfaces		X
Door lock repair or replacement	X	
Electrical fixture repair	X	
Floor refinishing		X
Carpet replacement		X
Grounds keeping	X	
Radiator leak repair	X	
Baluster repair (metal)		X
Demolition		X

* High-risk jobs typically disturb more than 2 square feet per room. If these jobs disturb less than 2 square feet, then they can be considered low-risk.

4.8.3 Permit Requirements for Removing or Stabilizing Lead-Based Paint

Washington Administrative Code 365-230 requires a 5-day notification for any person or firm performing work that falls under the definition of abatement listed in WAC 365-230 *and* meets one or more of the following:

- the structure you are working on is target housing, a residential structure built prior to 1978
- the structure you are working on is a child-occupied facility built prior to 1978
- you are abating soil on the property of a child-occupied facility or target housing

See: www.cted.wa.gov/lead/

Model Program

The best model program currently available for purchase is the National Institute of Building Sciences (NIBS), Operations and Maintenance Work Practices Manual for Homes and Buildings, May 1995, at $125.00. This technical procedure manual provides detailed guidance to homeowners, custodial and O&M workers, maintenance supervisors, and building owners for performing work where lead-based paint is, or may be, present. It also provides practical, specific guidance to laws and regulations. The O&M Manual addresses a range of situations in which operations and maintenance activities are routinely performed in buildings whether or not lead is present. It addresses three different levels of precaution, which may be warranted by specific building conditions and by the amount of potentially lead-contaminated dust and debris which may be generated by the activities.

The manual also contains model sample documentation forms, e.g., work order and authorization, hazard evaluation, and tenant notification forms, which can be modified and integrated into existing facilities management record keeping systems. The O&M Manual was developed by NIBS in cooperation with the U. S. Department of Housing and Urban Development.

Training

A training program for maintenance personnel in accordance with the minimum OSHA requirements should be implemented. OSHA has worker protection requirements that must be met by the employer if there is the potential for occupational exposure to lead at any level. Unlike the EPA and HUD, OSHA currently does not specify a minimum level, or concentration of lead in paint that triggers the requirements.

The maintenance staff, i.e., painters, plumbers, electricians, carpenters, etc., should be trained in safe work practices for lead paint. A training program should address worker safety (OSHA) and occupant protection (EPA and HUD) as well as provide lead safe work procedures. There are a variety of training courses designed to provide this information depending on the scope of the Operations and Maintenance Program.

1. **Lead-Based Paint Visual Assessment Training**
   An online training course designed to assist maintenance personnel in the recognition of paint conditions and the identification of paint problems. The course takes approximately two hours to complete. The entire course is contained in the following seven downloadable files located at:
   http://www.hud.gov/lea/training/visualassessment/h00100.htm

2. **Interim Controls / Lead-Safe Work Practices and Awareness Training**
   This training was developed by MIRCON, Inc. (CONNOR Environmental Services and Engineering Assessments) with support from HUD. This course teaches individuals how to perform interim controls, paint stabilization ongoing maintenance and standard treatments in accordance with the Lead Safe Housing Rule. The entire course is contained in the following seven downloadable files located at:
   http://www.hud.gov/lea/training/leadsafewp/leadsafewp.html

3. **Lead-Based Paint Maintenance Training program (O&M LSWP):**
   Repair and maintenance workers who do painting and minor repairs. This 8-hour course is offered regionally and the fees are underwritten by HUD. Pre-registration is required to attend these courses. Announcements of the schedule and location can be found at:
   http://www.leadlisting.org/leadlisting/MasterTrainingList.nsf/Main?OpenPage

4. **"Addressing Lead-Based Paint Hazards During Renovation, Remodeling and Rehabilitation in Federally Owned and Assisted Housing"**
   This is HUD's Adaptation of EPA Model Curriculum for Remodelers and Renovators. This one-day training program designed to teach lead-safe work practices for people doing remodeling, renovating and general rehabilitation workers such as dry wallers, painters and carpenters. It is HUD's adaptation of the course developed by HUD and the National Association of the

Remodeling Industry (NARI). This curriculum is available in MS PowerPoint for download and delivery. This course is available from the HUD Office of Healthy Homes and Lead Hazard Control web site.
http://www.hud.gov/lea/training/rr/HUD_RR_COURSE.html

5. "Lead-Based Paint Maintenance Training: Work Smart, Work Wet, Work Clean to Work Lead-Safe"

This course teaches lead-safe work procedures specifically for maintenance workers and supervisors working in multifamily properties that have or may contain lead-based paint. This curriculum available for purchase.

Contact:
National Environmental Training Association (NETA)
3020 East Camelback
Phoenix, Arizona 85016
602.956.6099

TAB 1

Lab Reports and Sample Data Sheets

XRF Data Sheets

Dust Wipe Sample Analyses

Soil Sample Analyses

Reading	Room	Component	Substrate	Color	Condition	Result (mg/sq cm)	Positive/Negative
	Living/Dining Room						
133	Ceiling	Ceiling	Gypsum wallboard	White	Intact	0	Negative
134	Side A	Wall	Gypsum wallboard	White	Intact	0	Negative
135	Side A	Sill	Wood	White	Intact	0.04	Negative
136	Side A	Door	Metal	Green	Intact	0	Negative
137	Side A	Door Frame	Wood	White	Intact	0	Negative
138	Side B	Wall	Gypsum wallboard	White	Intact	0	Negative
139	Side B	Door	Wood	White	Intact	0	Negative
140	Side B	Door Frame	Wood	White	Intact	0.07	Negative
141	Side C	Wall	Gypsum wallboard	White	Intact	0	Negative
142	Side C	Siding Door Frame	Wood	White	Intact	0	Negative
143	Side D	Wall	Gypsum wallboard	White	Intact	0	Negative
144	Side D	Door	Wood	White	Intact	0	Negative
145	Side D	Door Frame	Wood	White	Intact	0	Negative
146	Side D	Cabinet	Wood	Brown	Intact	0	Negative
	Kitchen						
147	Ceiling	Ceiling	Gypsum wallboard	White	Intact	0.01	Negative
148	Side A	Wall	Gypsum wallboard	White	Intact	0.26	Negative
149	Side A	Cabinet	Wood	Brown	Intact	0	Negative
150	Side B	Wall	Gypsum wallboard	White	Intact	0.17	Negative
151	Side C	Wall	Gypsum wallboard	White	Intact	0	Negative
152	Side C	Sill	Wood	White	Intact	0	Negative
	Bedroom 1						
153	Ceiling	Ceiling	Gypsum wallboard	White	Intact	0.07	Negative
154	Side A	Wall	Gypsum wallboard	White	Intact	0	Negative
155	Side A	Sill	Wood	White	Intact	0.06	Negative
156	Side B	Wall	Gypsum wallboard	White	Intact	0.01	Negative
157	Side C	Wall	Gypsum wallboard	White	Intact	0	Negative
158	Side C	Door	Wood	White	Intact	0.06	Negative
159	Side C	Door Frame	Wood	White	Intact	0	Negative
160	Side D	Wall	Gypsum wallboard	White	Intact	0.12	Negative
161	Side D	Closet Roll Door	Wood	White	Intact	0	Negative
	Bedroom 2						
162	Ceiling	Ceiling	Gypsum wallboard	White	Intact	0	Negative
163	Side A	Wall	Gypsum wallboard	White	Intact	0	Negative
164	Side A	Sill	Wood	White	Intact	0	Negative
165	Side B	Wall	Gypsum wallboard	White	Intact	0	Negative
166	Side C	Wall	Gypsum wallboard	White	Intact	0	Negative
167	Side C	Closet Roll Door	Wood	White	Intact	0	Negative
168	Side C	Door	Wood	White	Intact	0	Negative
169	Side C	Door Frame	Wood	White	Intact	0.06	Negative
170	Side D	Wall	Gypsum wallboard	White	Intact	0	Negative

Reading	Room	Component	Substrate	Color	Condition	Result (mg/sq cm)	Positive/Negative
	Bedroom 3						
171	Ceiling	Ceiling	Gypsum wallboard	White	Intact	0	Negative
172	Side A	Closet Roll Door	Wood	White	Intact	0	Negative
173	Side A	Wall	Gypsum wallboard	White	Intact	0.05	Negative
174	Side B	Wall	Gypsum wallboard	White	Intact	0.05	Negative
175	Side C	Wall	Gypsum wallboard	White	Intact	0	Negative
176	Side C	Sill	Wood	White	Intact	0.01	Negative
177	Side D	Wall	Gypsum wallboard	White	Intact	0	Negative
178	Side A	Door	Wood	White	Intact	0	Negative
179	Side A	Door Frame	Wood	White	Intact	0.17	Negative
	Bathroom						
180	Ceiling	Ceiling	Gypsum wallboard	White	Intact	0.14	Negative
181	Side A	Wall	Gypsum wallboard	White	Intact	0.12	Negative
182	Side A	Door	Wood	White	Intact	0	Negative
183	Side A	Door Frame	Wood	White	Intact	0	Negative
184	Side B	Wall	Gypsum wallboard	White	Intact	0	Negative
185	Side C	Wall	Gypsum wallboard	White	Intact	0	Negative
186	Side D	Wall	Gypsum wallboard	White	Intact	0	Negative
187	Side D	Cabinet	Wood	Brown	Intact	0	Negative
	Hall						
188	Ceiling	Ceiling	Gypsum wallboard	White	Intact	0	Negative
189	Side A	Wall	Gypsum wallboard	White	Intact	0	Negative
190	Side B	Wall	Gypsum wallboard	White	Intact	0	Negative
191	Side B	Door	Wood	White	Intact	0.05	Negative
192	Side B	Door Frame	Wood	White	Intact	0	Negative
193	Side C	Closet Roll Door	Wood	White	Intact	0	Negative
194	Side C	Wall	Gypsum wallboard	White	Intact	0	Negative
	Exterior						
195	Side C	Siding	Wood	Tan	Intact	0.19	Negative
196	Side C	Window Frame	Wood	Green	Intact	0	Negative
197	Side C	Window Frame	Wood	Green	Intact	0	Negative
198	Side C	Window Frame	Wood	Green	Intact	0	Negative
199	Side C	Door	Metal	White	Intact	0	Negative
200	Side C	Door Frame	Wood	White	Intact	0	Negative
201	Side C	Soffit	Wood	Tan	Intact	0.4	Negative
202	Side C	Gutter	Metal	White	Intact	1	Positive
203	Side B	Siding	Wood	Tan	Intact	0	Negative
204	Side B	Soffit	Wood	Tan	Intact	0.23	Negative
205	Side B	Trim at Roof	Wood	Green	Intact	0	Negative
206	Side B	Downspout	Metal	White	Intact	0.35	Negative
207	Side D	Siding	Wood	Tan	Intact	0.01	Negative
208	Side D	Soffit	Wood	Tan	Intact	0.02	Negative

Reading	Room	Component	Substrate	Color	Condition	Result (mg/sq cm)	Positive/Negative
209	Side D	Trim at Roof	Wood	Green	Intact	0.01	Negative
210	Side D	Downspout	Metal	White	Intact	0	Negative
211	Side D	Picnic Table	Wood	Green	Intact	0	Negative
212	Side D	Benches	Wood	Green	Intact	0	Negative
213	Inside Garage Wall C	Wall	Gypsum wallboard	Yellow	Intact	0	Negative
	Exterior of House						
214	Side A	Siding	Wood	Tan	Intact	0.19	Negative
215	Side A	Soffit	Wood	Tan	Intact	0.19	Negative
216	Side A	Gutter	Metal	White	Intact	1	Positive
217	Side A	Gutter	Metal	White	Intact	1	Positive
218	Side A	Gutter	Metal	White	Intact	1	Positive
219	Side A	Door	Metal	Gray	Intact	0	Negative
220	Side A	Door Frame	Wood	White	Intact	0	Negative
221	Side A	Garage Door Frame	Wood	Green	Intact	0.21	Negative
222	Side A	Window Frame	Wood	Green	Intact	0	Negative
223	Side A	Window Frame	Wood	Green	Intact	0	Negative
224	Side A	Window Frame	Wood	Green	Intact	0	Negative
225	Side A	Downspout	Metal	White	Intact	0.02	Negative
226	Side A	Beam in soffit at Front of House	Wood	Tan	Intact	0.24	Negative
227	Side A	Trim piece on front of House	Wood	Green	Intact	0.21	Negative

NVL Laboratories, Inc.

4708 Aurora Ave. N., Seattle, WA 98103
Tel: 206.547.0100, Fax: 206.634.1936
www.nvllabs.com

Analysis Report

AIHA - IH # 101861
WA - DOE # C1765

AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

Total Lead (Pb)

Client: PBS Environmental (Seattle)
Address: 2517 Eastlake Ave E, Suite 100
Seattle, WA 98102

Attention: Ms. Janet Murphy
Project Location: KCHA Bellevue Houses - 1333 164th Pl. NE

Batch #: 1209499.00
Matrix: Dust/wipe (Area)
Method: EPA 7000B
Client Project #: 40573.077
Date Received: 06/21/2012
Samples Received: 3
Samples Analyzed: 3

Lab ID	Client Sample #	Element	Sample sq ft	RL ug/ sq ft	Results in ug/wipe	Results in ug/sq. ft
12056101	40573.077-W1	Lead (Pb)	0.50	19.0	< 9.3	< 19.0
12056102	40573.077-W2	Lead (Pb)	0.50	19.0	< 9.3	< 19.0
12056103	40573.077-W3	Lead (Pb)	0.50	19.0	< 9.3	< 19.0

Sampled by: Client
Analyzed by: Aaron Brown
Reviewed by: Nick Ly
Date Analyzed: 06/25/2012
Date Issued: 06/25/2012

Nick Ly, Technical Director

ug/ sq. ft. =Micrograms per square foot
ug / wipe = Micrograms per wipe

RL = Reporting Limit
'<' = Below the reporting Limit

Note : Method QC results are acceptable unless stated otherwise. Concentration (ug/ft^2) not reported if sample area is zero. Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

Bench Run No: 32-0622-02

PBS

BATCH ID
1209499.00

KCHA Bellevue Houses

Project: 1333 164th Place N.E. **Project #:** 40573.077

Analysis requested: AAS Lead 9"x8" Area **Date:** 6/21/12

Relinq'd by/Signature: Janet Murphy **Date/Time:** 6/21/12

Received by/Signature: [signature] Null/abs **Date/Time:** 6/21/12 4:35

Fax results to:

☐	Brian Stanford	☐	Prudy Stoudt-McRae	☐	Ferman Fletcher
☐	Ernest Edwards	☐	Joe Lucas	☐	Tim Ogden
☐	Gregg Middaugh	☑	Janet Murphy	☐	Mike Smith
☒	Mark Hiley	☐	Willem Mager	☐	Chuck Greeb

TURN AROUND TIME:

☐	1 Hour	☐	24 Hours	☐	3-5 Days
☐	2 Hours	☐	48 Hours	☑	Other 4 Days
☐	4 Hours				

Analyzed by Aaron Brown NVL 6/25/12 9:45

Emailed by Aaron Brown NVL 6/27/12 15:10

BULK SAMPLE DATA FORM

Lab #	Sample #	Material	Location	Lab
	w1	Floor wipe	Bedroom 1 Entry	
	w2	Floor wipe	Living Room Front Entry	
	w3	Floor wipe	Kitchen Back Entry	

S:\Masters\Office\Tech Forms & Templates\Lab Chain-of-Custody.doc

NVL Laboratories, Inc.

4708 Aurora Ave. N., Seattle, WA 98103
Tel: 206.547.0100, Fax: 206.634.1936
www.nvllabs.com

Analysis Report

AIHA - IH # 101861
WA - DOE # C1765

AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

Total Lead (Pb)

Client: PBS Environmental (Seattle)
Address: 2517 Eastlake Ave E, Suite 100
Seattle, WA 98102

Attention: Ms. Janet Murphy
Project Location: KCHA Bellevue Houses - 1333 164th Pl. NE

Batch #: 1209498.00
Matrix: Soil
Method: EPA 7000B
Client Project #: 40573.077
Date Received: 06/21/2012
Samples Received: 1
Samples Analyzed: 1

Lab ID	Client Sample #	Sample Wt (g)	RL mg/ kg	Results in mg/Kg	Results in ppm
12056100	40573.077-S1	0.2895	32.0	< 32.0	< 32.0

Sampled by: Client
Analyzed by: Aaron Brown Date Analyzed: 06/26/2012
Reviewed by: Nick Ly Date Issued: 06/26/2012

Nick Ly, Technical Director

mg/ kg = Milligrams per kilogram
ppm = Parts per million

RL = Reporting Limit
'<' = Below the reporting Limit

Note : Method QC results are acceptable unless stated otherwise.
Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

Bench Run No: 32-0626-02

KCHA Bellevue Houses

PBS

BATCH ID
1209498.00

Project: 1333 164th Place N.E. **Project #:** 40573.077

Analysis requested: AAS Lead **Date:** 6/21/12

Relinq'd by/Signature: Janet Murphy **Date/Time:** 6/21/12

Received by/Signature: [signature] **Date/Time:** 6/21/12 4:35p

Fax results to:

☐	Brian Stanford	☐	Prudy Stoudt-McRae	☐	Ferman Fletcher
☐	Ernest Edwards	☐	Joe Lucas	☐	Tim Ogden
☐	Gregg Middaugh	☑	Janet Murphy	☐	Mike Smith
☑	Mark Hiley	☐	Willem Mager	☐	Chuck Greeb

TURN AROUND TIME:

☐	1 Hour	☐	24 Hours	☐	3-5 Days
☐	2 Hours	☐	48 Hours	☑	Other 4 Days
☐	4 Hours				

Analyzed by Aaron Brown NR 6/26/12 10:45
Emailed by Aaron Brown NR 6/27/12 15:10

BULK SAMPLE DATA FORM

Lab #	Sample #	Material	Location	Lab
	S1	Soil	Composite from around the drip line.	

PBS ENGINEERING+ENVIRONMENTAL, 2517 Eastlake Ave E., #100, Seattle, WA 98102, (206)233-9639, FaX: (206)762-4780

TAB 2

Publications

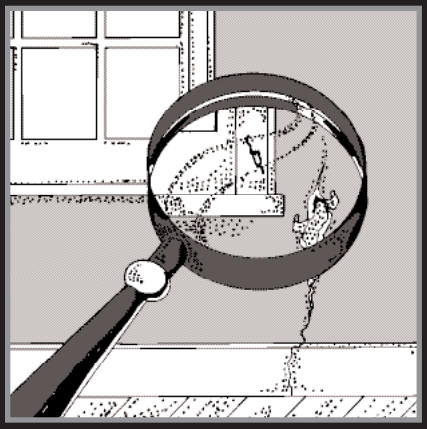
Pamphlet *"Protect Your Family From Lead In Your Home"*
Pamphlet *"Testing Your Home for Lead in Paint, Dust, and Soil"*
Pamphlet *"The Lead-Based Paint Pre-Renovation Education Rule"*
Provided Electronically

Simple Steps To Protect Your Family From Lead Hazards

If you think your home has high levels of lead:

- Get your young children tested for lead, even if they seem healthy.
- Wash children's hands, bottles, pacifiers, and toys often.
- Make sure children eat healthy, low-fat foods.
- Get your home checked for lead hazards.
- Regularly clean floors, window sills, and other surfaces.
- Wipe soil off shoes before entering house.
- Talk to your landlord about fixing surfaces with peeling or chipping paint.
- Take precautions to avoid exposure to lead dust when remodeling or renovating (call 1-800-424-LEAD for guidelines).
- Don't use a belt-sander, propane torch, high temperature heat gun, scraper, or sandpaper on painted surfaces that may contain lead.
- Don't try to remove lead-based paint yourself.

Recycled/Recyclable
Printed with vegetable oil based inks on recycled paper (minimum 50% postconsumer) process chlorine free.



Protect Your Family From Lead In Your Home

United States Environmental Protection Agency

United States Consumer Product Safety Commission

United States Department of Housing and Urban Development

Are You Planning To Buy, Rent, or Renovate a Home Built Before 1978?

Many houses and apartments built before 1978 have paint that contains high levels of lead (called lead-based paint). Lead from paint, chips, and dust can pose serious health hazards if not taken care of properly.

OWNERS, BUYERS, and RENTERS are encouraged to check for lead (see page 6) before renting, buying or renovating pre-1978 housing.

Federal law requires that individuals receive certain information before renting, buying, or renovating pre-1978 housing:

LANDLORDS have to disclose known information on lead-based paint and lead-based paint hazards before leases take effect. Leases must include a disclosure about lead-based paint.

SELLERS have to disclose known information on lead-based paint and lead-based paint hazards before selling a house. Sales contracts must include a disclosure about lead-based paint. Buyers have up to 10 days to check for lead.

RENOVATORS disturbing more than 2 square feet of painted surfaces have to give you this pamphlet before starting work.

IMPORTANT!

Lead From Paint, Dust, and Soil Can Be Dangerous If Not Managed Properly

FACT: Lead exposure can harm young children and babies even before they are born.

FACT: Even children who seem healthy can have high levels of lead in their bodies.

FACT: People can get lead in their bodies by breathing or swallowing lead dust, or by eating soil or paint chips containing lead.

FACT: People have many options for reducing lead hazards. In most cases, lead-based paint that is in good condition is not a hazard.

FACT: Removing lead-based paint improperly can increase the danger to your family.

If you think your home might have lead hazards, read this pamphlet to learn some simple steps to protect your family.

Lead Gets in the Body in Many Ways

Childhood lead poisoning remains a major environmental health problem in the U.S.

Even children who appear healthy can have dangerous levels of lead in their bodies.

People can get lead in their body if they:

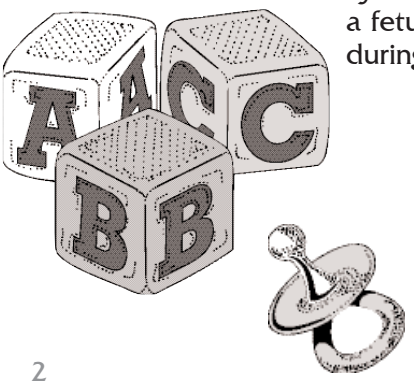
- Breathe in lead dust (especially during renovations that disturb painted surfaces).
- Put their hands or other objects covered with lead dust in their mouths.
- Eat paint chips or soil that contains lead.

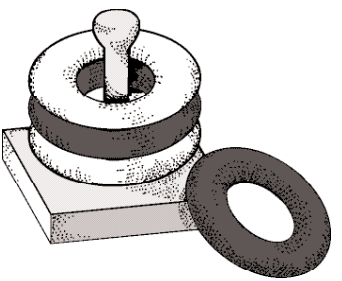
Lead is even more dangerous to children under the age of 6:

- At this age children's brains and nervous systems are more sensitive to the damaging effects of lead.
- Children's growing bodies absorb more lead.
- Babies and young children often put their hands and other objects in their mouths. These objects can have lead dust on them.

Lead is also dangerous to women of childbearing age:

- Women with a high lead level in their system prior to pregnancy would expose a fetus to lead through the placenta during fetal development.





Lead's Effects

It is important to know that even exposure to low levels of lead can severely harm children.

In children, lead can cause:

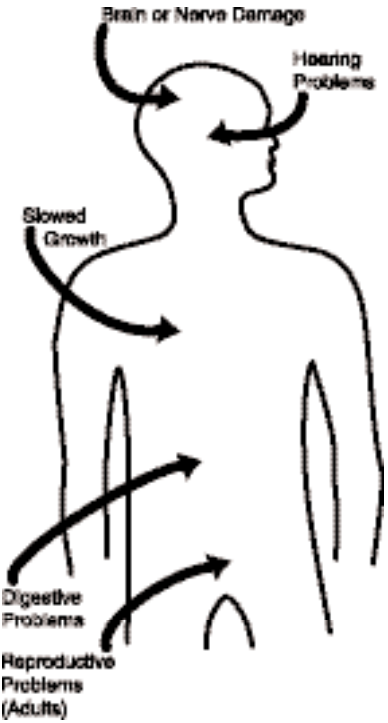
- Nervous system and kidney damage.
- Learning disabilities, attention deficit disorder, and decreased intelligence.
- Speech, language, and behavior problems.
- Poor muscle coordination.
- Decreased muscle and bone growth.
- Hearing damage.

While low-lead exposure is most common, exposure to high levels of lead can have devastating effects on children, including seizures, unconsciousness, and, in some cases, death.

Although children are especially susceptible to lead exposure, lead can be dangerous for adults too.

In adults, lead can cause:

- Increased chance of illness during pregnancy.
- Harm to a fetus, including brain damage or death.
- Fertility problems (in men and women).
- High blood pressure.
- Digestive problems.
- Nerve disorders.
- Memory and concentration problems.
- Muscle and joint pain.



Lead affects the body in many ways.

Where Lead-Based Paint Is Found

In general, the older your home, the more likely it has lead-based paint.

Many homes built before 1978 have lead-based paint. The federal government banned lead-based paint from housing in 1978. Some states stopped its use even earlier. Lead can be found:

- In homes in the city, country, or suburbs.
- In apartments, single-family homes, and both private and public housing.
- Inside and outside of the house.
- In soil around a home. (Soil can pick up lead from exterior paint or other sources such as past use of leaded gas in cars.)

Checking Your Family for Lead

Get your children and home tested if you think your home has high levels of lead.

To reduce your child's exposure to lead, get your child checked, have your home tested (especially if your home has paint in poor condition and was built before 1978), and fix any hazards you may have. Children's blood lead levels tend to increase rapidly from 6 to 12 months of age, and tend to peak at 18 to 24 months of age.

Consult your doctor for advice on testing your children. A simple blood test can detect high levels of lead. Blood tests are usually recommended for:

- Children at ages 1 and 2.
- Children or other family members who have been exposed to high levels of lead.
- Children who should be tested under your state or local health screening plan.

Your doctor can explain what the test results mean and if more testing will be needed.

Identifying Lead Hazards

Lead-based paint is usually not a hazard if it is in good condition, and it is not on an impact or friction surface, like a window. It is defined by the federal government as paint with lead levels greater than or equal to 1.0 milligram per square centimeter, or more than 0.5% by weight.

Lead from paint chips, which you can see, and lead dust, which you can't always see, can both be serious hazards.

Deteriorating lead-based paint (peeling, chipping, chalking, cracking or damaged) is a hazard and needs immediate attention. It may also be a hazard when found on surfaces that children can chew or that get a lot of wear-and-tear, such as:

- Windows and window sills.
- Doors and door frames.
- Stairs, railings, banisters, and porches.

Lead dust can form when lead-based paint is scraped, sanded, or heated. Dust also forms when painted surfaces bump or rub together. Lead chips and dust can get on surfaces and objects that people touch. Settled lead dust can re-enter the air when people vacuum, sweep, or walk through it. The following two federal standards have been set for lead hazards in dust:

- 40 micrograms per square foot ($\mu g/ft^2$) and higher for floors, including carpeted floors.
- 250 $\mu g/ft^2$ and higher for interior window sills.

Lead in soil can be a hazard when children play in bare soil or when people bring soil into the house on their shoes. The following two federal standards have been set for lead hazards in residential soil:

- 400 parts per million (ppm) and higher in play areas of bare soil.
- 1,200 ppm (average) and higher in bare soil in the remainder of the yard.

The only way to find out if paint, dust and soil lead hazards exist is to test for them. The next page describes the most common methods used.

Checking Your Home for Lead

Just knowing that a home has lead-based paint may not tell you if there is a hazard.

You can get your home tested for lead in several different ways:

- A paint **inspection** tells you whether your home has lead-based paint and where it is located. It won't tell you whether or not your home currently has lead hazards.
- A **risk assessment** tells you if your home currently has any lead hazards from lead in paint, dust, or soil. It also tells you what actions to take to address any hazards.
- A combination risk assessment and inspection tells you if your home has any lead hazards and if your home has any lead-based paint, and where the lead-based paint is located.

Hire a trained and certified testing professional who will use a range of reliable methods when testing your home.

- Visual inspection of paint condition and location.
- A portable x-ray fluorescence (XRF) machine.
- Lab tests of paint, dust, and soil samples.

There are state and federal programs in place to ensure that testing is done safely, reliably, and effectively. Contact your state or local agency (see bottom of page 11) for more information, or call **1-800-424-LEAD (5323)** for a list of contacts in your area.

Home test kits for lead are available, but may not always be accurate. Consumers should not rely on these kits before doing renovations or to assure safety.

What You Can Do Now To Protect Your Family

If you suspect that your house has lead hazards, you can take some immediate steps to reduce your family's risk:

- **If you rent, notify your landlord of peeling or chipping paint.**
- **Clean up paint chips immediately.**
- **Clean floors, window frames, window sills, and other surfaces weekly**. Use a mop or sponge with warm water and a general all-purpose cleaner or a cleaner made specifically for lead. REMEMBER: NEVER MIX AMMONIA AND BLEACH PRODUCTS TOGETHER SINCE THEY CAN FORM A DANGEROUS GAS.

- **Thoroughly rinse sponges and mop heads after cleaning dirty or dusty areas**.
- **Wash children's hands often, especially before they eat and before nap time and bed time.**
- **Keep play areas clean.** Wash bottles, pacifiers, toys, and stuffed animals regularly.
- **Keep children from chewing window sills or other painted surfaces.**
- **Clean or remove shoes before entering your home to avoid tracking in lead from soil.**

- **Make sure children eat nutritious, low-fat meals high in iron and calcium,** such as spinach and dairy products. Children with good diets absorb less lead.

Reducing Lead Hazards In The Home

Removing lead improperly can increase the hazard to your family by spreading even more lead dust around the house.

Always use a professional who is trained to remove lead hazards safely.

In addition to day-to-day cleaning and good nutrition:

- You can **temporarily** reduce lead hazards by taking actions such as repairing damaged painted surfaces and planting grass to cover soil with high lead levels. These actions (called "interim controls") are not permanent solutions and will need ongoing attention.
- To **permanently** remove lead hazards, you should hire a certified lead "abatement" contractor. Abatement (or permanent hazard elimination) methods include removing, sealing, or enclosing lead-based paint with special materials. Just painting over the hazard with regular paint is not permanent removal.

Always hire a person with special training for correcting lead problems—someone who knows how to do this work safely and has the proper equipment to clean up thoroughly. Certified contractors will employ qualified workers and follow strict safety rules as set by their state or by the federal government.

Once the work is completed, dust cleanup activities must be repeated until testing indicates that lead dust levels are below the following:

- 40 micrograms per square foot ($\mu g/ft^2$) for floors, including carpeted floors;
- 250 $\mu g/ft^2$ for interior windows sills; and
- 400 $\mu g/ft^2$ for window troughs.

Call your state or local agency (see bottom of page 11) for help in locating certified professionals in your area and to see if financial assistance is available.

Remodeling or Renovating a Home With Lead-Based Paint

Take precautions before your contractor or you begin remodeling or renovating anything that disturbs painted surfaces (such as scraping off paint or tearing out walls):

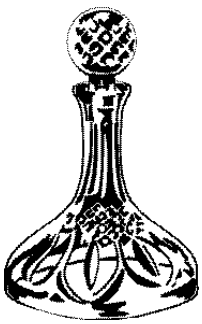
- **Have the area tested for lead-based paint.**
- **Do not use a belt-sander, propane torch, high temperature heat gun, dry scraper, or dry sandpaper** to remove lead-based paint. These actions create large amounts of lead dust and fumes. Lead dust can remain in your home long after the work is done.
- **Temporarily move your family** (especially children and pregnant women) out of the apartment or house until the work is done and the area is properly cleaned. If you can't move your family, at least completely seal off the work area.
- **Follow other safety measures to reduce lead hazards.** You can find out about other safety measures by calling 1-800-424-LEAD. Ask for the brochure "Reducing Lead Hazards When Remodeling Your Home." This brochure explains what to do before, during, and after renovations.

If not conducted properly, certain types of renovations can release lead from paint and dust into the air.

If you have already completed renovations or remodeling that could have released lead-based paint or dust, get your young children tested and follow the steps outlined on page 7 of this brochure.

Other Sources of Lead

While paint, dust, and soil are the most common sources of lead, other lead sources also exist.



- **Drinking water.** Your home might have plumbing with lead or lead solder. Call your local health department or water supplier to find out about testing your water. You cannot see, smell, or taste lead, and boiling your water will not get rid of lead. If you think your plumbing might have lead in it:
  - Use only cold water for drinking and cooking.
  - Run water for 15 to 30 seconds before drinking it, especially if you have not used your water for a few hours.
- **The job.** If you work with lead, you could bring it home on your hands or clothes. Shower and change clothes before coming home. Launder your work clothes separately from the rest of your family's clothes.
- Old painted **toys** and **furniture.**
- Food and liquids stored in **lead crystal** or **lead-glazed pottery or porcelain.**
- **Lead smelters** or other industries that release lead into the air.
- **Hobbies** that use lead, such as making pottery or stained glass, or refinishing furniture.
- **Folk remedies** that contain lead, such as "greta" and "azarcon" used to treat an upset stomach.

For More Information

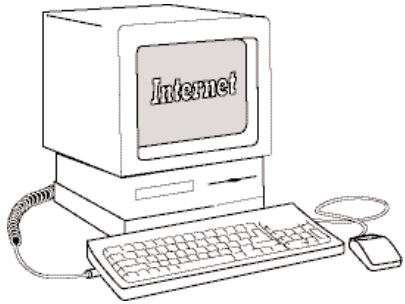
The National Lead Information Center

Call **1-800-424-LEAD (424-5323)** to learn how to protect children from lead poisoning and for other information on lead hazards. To access lead information via the web, visit **www.epa.gov/lead** and **www.hud.gov/offices/lead/.**

EPA's Safe Drinking Water Hotline

Call **1-800-426-4791** for information about lead in drinking water.

Consumer Product Safety Commission (CPSC) Hotline



To request information on lead in consumer products, or to report an unsafe consumer product or a product-related injury call **1-800-638-2772**, or visit CPSC's Web site at: **www.cpsc.gov.**

Health and Environmental Agencies

Some cities, states, and tribes have their own rules for lead-based paint activities. Check with your local agency to see which laws apply to you. Most agencies can also provide information on finding a lead abatement firm in your area, and on possible sources of financial aid for reducing lead hazards. Receive up-to-date address and phone information for your local contacts on the Internet at **www.epa.gov/lead** or contact the National Lead Information Center at **1-800-424-LEAD.**

For the hearing impaired, call the Federal Information Relay Service at **1-800-877-8339** to access any of the phone numbers in this brochure.

EPA Regional Offices

Your Regional EPA Office can provide further information regarding regulations and lead protection programs.

EPA Regional Offices

Region 1 (Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont)

Regional Lead Contact
U.S. EPA Region 1
Suite 1100 (CPT)
One Congress Street
Boston, MA 02114-2023
1 (888) 372-7341

Region 2 (New Jersey, New York, Puerto Rico, Virgin Islands)

Regional Lead Contact
U.S. EPA Region 2
2890 Woodbridge Avenue
Building 209, Mail Stop 225
Edison, NJ 08837-3679
(732) 321-6671

Region 3 (Delaware, Maryland, Pennsylvania, Virginia, Washington DC, West Virginia)

Regional Lead Contact
U.S. EPA Region 3 (3WC33)
1650 Arch Street
Philadelphia, PA 19103
(215) 814-5000

Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee)

Regional Lead Contact
U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303
(404) 562-8998

Region 5 (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin)

Regional Lead Contact
U.S. EPA Region 5 (DT-8J)
77 West Jackson Boulevard
Chicago, IL 60604-3666
(312) 886-6003

Region 6 (Arkansas, Louisiana, New Mexico, Oklahoma, Texas)

Regional Lead Contact
U.S. EPA Region 6
1445 Ross Avenue, 12th Floor
Dallas, TX 75202-2733
(214) 665-7577

Region 7 (Iowa, Kansas, Missouri, Nebraska)

Regional Lead Contact
U.S. EPA Region 7
(ARTD-RALI)
901 N. 5th Street
Kansas City, KS 66101
(913) 551-7020

Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming)

Regional Lead Contact
U.S. EPA Region 8
999 18th Street, Suite 500
Denver, CO 80202-2466
(303) 312-6021

Region 9 (Arizona, California, Hawaii, Nevada)

Regional Lead Contact
U.S. Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 947-4164

Region 10 (Alaska, Idaho, Oregon, Washington)

Regional Lead Contact
U.S. EPA Region 10
Toxics Section WCM-128
1200 Sixth Avenue
Seattle, WA 98101-1128
(206) 553-1985

CPSC Regional Offices

Your Regional CPSC Office can provide further information regarding regulations and consumer product safety.

Eastern Regional Center
Consumer Product Safety Commission
201 Varick Street, Room 903
New York, NY 10014
(212) 620-4120

Western Regional Center
Consumer Product Safety Commission
1301 Clay Street, Suite 610-N
Oakland, CA 94612
(510) 637-4050

Central Regional Center
Consumer Product Safety Commission
230 South Dearborn Street, Room 2944
Chicago, IL 60604
(312) 353-8260

HUD Lead Office

Please contact HUD's Office of Healthy Homes and Lead Hazard Control for information on lead regulations, outreach efforts, and lead hazard control and research grant programs.

U.S. Department of Housing and Urban Development
Office of Healthy Homes and Lead Hazard Control
451 Seventh Street, SW, P-3206
Washington, DC 20410
(202) 755-1785

U.S. EPA Washington DC 20460
U.S. CPSC Washington DC 20207
U.S. HUD Washington DC 20410

EPA747-K-99-001
June 2003

United States
Environmental Protection
Agency

Office of
Pollution Prevention and Toxics
7404

EPA 747-K-00-001
July 2000

Testing Your Home For Lead

In Paint, Dust, And Soil

Preface

About This Publication

This publication is for anyone who is considering having a home or residence tested for lead in paint, dust, or soil by a lead-based paint professional. It explains the technical aspects of lead testing without overwhelming the reader. Thus, commonly asked questions are presented in logical order. The first section tells why you would test for lead, the approaches for testing for lead, and what information you will get from each approach. The second section answers specific questions about how paint, soil, and dust sampling are conducted by a lead-based paint professional in your home. Finally, the last section answers other questions about testing, including questions about home test kits and testing of water and ceramics.

Important:

This publication addresses federal regulations and guidelines. Your state may have its own lead program and different regulations. For more information, contact the National Lead Information Center (NLIC) at **1-800-424-LEAD** or visit **http://www.epa.gov/lead**.

Table Of Contents

Section 1: General Questions About Testing Approaches

Section 2: Specific Questions About Testing Paint, Dust, And Soil

Section 3: Miscellaneous Questions Frequently Asked About Testing

Section 1

General Questions About Testing Procedures

Q: Why Should I Test My Home For Lead?

A: There are numerous reasons why you might want to test your home for lead, especially if built before 1978.

I. There Are (Or Will Be) Children Age Six And Younger In The Home

Lead from paint, especially peeling or flaking paint, can get into dust and soil in and around a home. Young children may then swallow the lead during normal hand-to-mouth activity. In addition, an unborn child may be exposed to lead in the mother's womb. High levels of lead in the fetus and in children age six and younger have been linked to nervous system damage, behavior and learning problems, and slow growth. Testing can tell you whether there is lead-based paint or a lead-based paint hazard in your home.

II. You Are About To Remodel, Renovate, Or Repaint Your Home

Any disturbance of lead-based paint can create a hazard by depositing lead chips or particles in the house dust or in the soil around the house. If you are planning on doing renovation, remodeling, or repainting, you should have testing done by a certified lead-based paint professional on any painted surfaces that will be removed, disturbed, scraped, or sanded before starting the work. The EPA brochure *Reducing Lead Hazards When Remodeling Your Home* (see page 16) provides guidelines for renovating or remodeling your home.

If your house was built before 1978 and you hire a professional to renovate, the renovator must, before beginning renovation, give you a copy of the EPA pamphlet *Protect Your Family From Lead In Your Home*.

III. You Are Renting Or Buying A Home

The Federal Lead-Based Paint and Lead-Based Paint Hazards Disclosure Rule requires that the landlord or seller of a residential dwelling built prior to 1978 provide the renter or buyer with:

- The pamphlet *Protect Your Family From Lead In Your Home* and
- Any available information on lead-based paint or lead-based paint hazards in the home.

A buyer must be given the opportunity to conduct testing to determine whether lead-based paint or lead-based paint hazards are present. While you are not required by law to test for lead, it may be advisable if you have (or plan to have) young children in the home.

IV. You Are A Landlord Or Selling A Home

As discussed above, a homeowner is required to provide renters or buyers with any available information on lead-based paint or lead-based paint hazards in homes built before 1978. Testing will give you the information that may be requested by potential renters or buyers.

Q: Why Is Testing Recommended For Houses Built Before 1978?

A: Federal regulations placed a limit on the amount of lead in paint sold for residential use starting in 1978. That is why homes built before 1978 are subject to the Disclosure Rule. The older the home, the greater the chance of lead-based paint and lead-based paint hazards, and the more important it is to have the home tested.

Q: What Kind Of Testing Do I Want?

A: Three different approaches for testing lead are available: a lead-based paint inspection, a risk assessment, and a lead hazard screen. A combination inspection and risk assessment may also be done. Selection of the approach depends on why you are testing.

I. Lead-Based Paint Inspection

A lead-based paint *inspection* is a surface-by-surface investigation to determine whether there is lead-based paint in the home and where it is located. An inspection may be particularly useful before renovation, repainting, or paint removal.

An inspection includes:

- An inventory of all painted surfaces, including the outside as well as the inside of the home. 'Painted surfaces' include all surfaces coated with paint, shellac, varnish, stain, coating, or even paint covered by wallpaper.
- Selection and testing of each type of painted surface.

Then you should get a report listing the painted surfaces in the home and whether each painted surface contains lead-based paint.

An inspection does not typically test painted furniture unless it is a permanent part of the home, such as kitchen or bathroom cabinets or built-in bookshelves. Soil, dust, and water are not typically tested during an inspection.

The presence of lead-based paint in a home does not necessarily mean there is a lead-based paint hazard to occupants. To make sure, you may want a different testing approach (either a risk assessment or hazard screen).

Typical Painted Surfaces Tested During Inspection			
Inside The Home		**Outside The Home**	
Baseboards	Heating Units	Chimneys	Mailboxes
Built-In Cabinets	Railings	Door Trim	Porches
Ceilings	Shelves	Fascia, Soffits	Roofing
Chair Rails	Stairs	Fences	Siding
Doors	Walls	Gutters, Downspouts	Stairs
Fireplaces	Windows	Handrails	Sheds
Floors		Lattice Work	Swing Sets

II. Risk Assessment

A *risk assessment* is an on-site investigation to determine the presence, type, severity, and location of lead-based paint hazards. The presence of deteriorated lead-based paint or high levels of lead in dust or soil pose potential hazards to children who may ingest lead inside or playing outside.

A risk assessment includes:

- A visual inspection of the residence to determine the location of deteriorated paint, the extent and causes of the deterioration, and other factors that may cause lead exposure to young children inside or outside the home.
- Testing deteriorated paint and paint on surfaces where there is reason to believe (from teeth marks or from reports of a parent) that a child has chewed, licked, or mouthed the paint. Painted surfaces in good condition are not tested.
- Testing household dust from floors and windows. Samples should include areas from a child's bedroom, a child's main play area, the main entrance, and other locations to be chosen by the certified Risk Assessor.
- Testing bare soil from play areas, the building foundation, and possibly other areas around the home.
- Optional water testing.

Finally, you should get a report identifying the location of the types of lead-based paint hazards and ways to control them. Because not all paint is tested, a risk assessment cannot conclude that there is no lead-based paint in the home.

An important point is that a risk assessment identifies current lead-based paint hazards. New hazards may arise if lead-based paint is disturbed, damaged, or deteriorates.

If you want to know which painted surfaces contain lead-based paint and whether any lead-based hazards are present, you will need a combination inspection and risk assessment.

III. Lead Hazard Screen

A *lead hazard screen* is a limited version of a risk assessment for houses with a low chance of lead risks.

In a lead hazard screen:

- Any painted surfaces in a deteriorated condition are tested.
- Two sets of dust samples are collected in a lead hazard screen. One set represents the floors and the other set represents the windows. Typically, there is less dust sampling in a lead hazard screen than in a risk assessment.
- Usually soil samples are not collected in a lead hazard screen, with one exception. If there is evidence of paint chips in the soil from previous exterior repainting, then the soil should be sampled and tested.

The outcome of the lead hazard screen is either a conclusion that lead-based paint hazards are probably not present or a recommendation that a full risk assessment be conducted to determine if such hazards are present.

In a lead hazard screen, only deteriorated paint is tested. Thus, a lead hazard screen cannot conclude there is no lead-based paint in the home.

A lead hazard screen is only recommended for residences that are generally in good condition, with little visible dust, and with paint in good condition (very little chipping or flaking). If not, the screen is likely to be a waste of time and money. In general, a lead hazard screen will be more useful in housing built after 1960.

As with a risk assessment, a lead hazard screen identifies current lead-based paint hazards. If there is lead-based paint in the home, new hazards may arise if that paint is disturbed, damaged, or deteriorates.

Q: Who Can Do Lead Testing For Me?

A: It is strongly recommended that testing be performed by a certified Inspector or certified Risk Assessor.

- Certified Inspectors can perform only lead-based paint inspections.
- Certified Risk Assessors can perform both risk assessments and lead hazard screens.

Your state may define the titles for lead-based paint professionals and the types of testing they can perform differently from what this brochure says. You can find out by calling NLIC at **1-800-424-LEAD**.

Q: What Will The Testing Report Tell Me?

A: That will depend on which approach has been used: inspection, risk assessment, or lead hazard screen. Request a sample report before the testing is done so that you may see what information will be provided and how it will be presented. You should also request that actual lead values (not just 'positive' or 'negative' classifications) be provided in the report as evidence that the testing was actually done.

I. Inspection Report

If you have an inspection done, you should receive a report that tells you which painted surfaces were tested and the test results for each surface. An inspection report will not tell you the condition of the lead-based paint or whether lead-based paint hazards exist.

II. Risk Assessment Report

If you have a risk assessment done, you will receive a report that tells you whether there are any lead-based paint hazards and recommends ways to reduce or control any hazards present.

The certified Risk Assessor will take into account the test results and the results of the visual inspection to decide if there are any lead-based paint hazards and how to control them. Lead-based paint hazards identified include lead-based paint in deteriorated condition or on surfaces mouthed by a child. In addition, house dust or bare soil with hazardous lead levels will be identified.

The certified Risk Assessor will provide a list of options for controlling each hazard. Options may include both interim controls and abatement.

- *Interim Controls* – These are short-term or temporary actions. Examples include recommendations to repair deteriorated surfaces that contain lead-based paint, to clean house dust more frequently, or to plant grass or shrubs in areas with bare soil.

- *Abatement* – These are long-term or permanent actions. Examples include replacing old windows, building a new wall over an existing one, or removing soil.

The certified Risk Assessor will also identify the probable source of the paint deterioration and determine whether other repairs are warranted. For example, a water leak may need to be repaired to prevent further damage to the paint.

III. Hazard Screen Report

If you have a lead hazard screen done, the report tells you either that there are probably no lead-based paint hazards in the house or that full-scale risk assessment is needed.

Q: Do I Have To Do Anything After The Testing Is Completed?

A: There is no EPA requirement for you to do anything to any lead-based paint or lead-based paint hazards found when testing your home. However, if your home was built before 1978, you will be required to provide the test results to any renter or buyer when you lease or sell the home. For more information on the responsibilities of sellers, landlords and their agents, contact NLIC at **1-800-424-LEAD** or visit **http://www.epa.gov/lead**.

Be aware that there may be state or other requirements for action based on the test results. You can call NLIC at **1-800-424-LEAD** for information about what is required in your locality before you start testing.

Q: May I Abate Lead-Based Paint Hazards In My Own Home?

A: If you decide to abate lead-based paint hazards in your own home, it is not recommended that you do the work yourself. Abatement activities must be done following careful procedures to prevent contamination of the home with lead dust. To be safe, hire a certified lead-based paint contractor (a certified professional who can do lead-based paint related abatement). Dust samples should be collected to check the thoroughness of the work.

Be aware that you must be certified yourself or you must hire a certified lead-based paint professional in the following cases: 1) if a child with a blood-lead level of 20 µg/dL* or higher for a single venous test (or 15–19 µg/dL in two consecutive tests taken 3 to 4 months apart) lives in the house or 2) you own the house and rent it to someone else.

If you hire a firm to do testing for lead-based paint hazards, note that you are not under any obligation to hire the same firm to do the abatement. In fact, it would be better to have one firm conduct all testing and another firm conduct the abatement work. That will prevent a conflict of interest.

Be sure to maintain a record of the work to help during any future sale or rental of the home.

*Pronounced micrograms of lead per deciliter of blood.

Section 2

Specific Questions About Testing Paint, Dust, And Soil

Q: Are All Painted Surfaces In The Home Tested?

A: Not every single painted surface in the home will be tested in an inspection, but all types of painted surfaces are tested. For example, a room may have three windows, all painted the same color and all made out of wood. The certified Inspector may not test all three windows, because they appear to be the same.

In a similar fashion, the certified Inspector will go through every room and test the different types of painted surfaces in the rooms. Painted surfaces on the outside of the home, detached structures (such as garages), and items like painted fences and swing sets should also be tested.

Inspections differ from risk assessments and lead hazard screens. In a risk assessment, only deteriorated paint and paint that has been mouthed or chewed by a child will be tested. In a lead hazard screen, only deteriorated paint is tested.

Q: How Are Painted Surfaces Tested?

A: There are currently two methods recognized by EPA for testing paint: portable X-Ray Fluorescence (XRF) analyzers and paint chip sampling followed by analysis by a laboratory recognized by EPA's National Lead Laboratory Accreditation Program (NLLAP).

I. Portable X-Ray Fluorescence Analyzers (XRFs)

A portable XRF measures lead in paint, generally without damaging the paint. However, readings from some XRFs are affected by the base material (known as the "substrate") underneath the paint, such as wood, plaster, or metal. For these cases, the certified Inspector removes paint from a few surfaces of each type and takes a measurement on the unpainted surface. These measurements provide a baseline to adjust the lead in paint value. This procedure may do some paint damage. Also, for curved surfaces or very deteriorated paint, XRF analyzers may not read accurately and a paint chip sample may be required.

When a certified lead-based paint professional follows good testing practices,

XRF analyzers provide a fast and reliable method for classifying many painted surfaces. However, some XRF test results may be inconclusive (neither positive nor negative). Then laboratory testing of a paint chip sample may be necessary.

Because the XRF analyzer uses a radiation source to detect lead, occupants in the household should be asked to stay out of rooms behind the surfaces being tested.

II. Paint Chip Sampling And Laboratory Analysis

Paint chip samples are collected for laboratory analysis by removing one to four square inches of paint from the surface. All layers of paint in the sampled area are included in the sample. Usually samples will contain some of the material beneath the paint, such as wood, plaster, or concrete particles. The amount of this material will be kept to a minimum.

Tools such as chisels and scrapers are used to remove the paint. Sometimes a heat gun is used to soften the paint and make the removal easier. If so, a respirator should be worn by the person operating the heat gun for protection from lead and other fumes. In addition, the room or area should be well ventilated to protect occupants.

After collecting the paint chip sample, the certified lead-based paint professional will repair the scraped area so that adjacent paint will not peel or flake off. Any paint chips or dust from the sampling should be cleaned up by the certified lead-based paint professional to ensure no lead dust is left behind.

Paint chip samples should be analyzed for lead by a laboratory recognized by EPA's NLLAP as proficient for testing lead in paint. EPA has established the NLLAP to ensure that laboratory analyses are done accurately. A laboratory on the list is recognized as proficient for testing for lead in whichever of the three sample types (paint, dust, or soil) the laboratory has qualified. The certified Inspector and certified Risk Assessor must ensure that any paint chip samples from your home are analyzed by a laboratory on the NLLAP list for paint. This publication addresses federal regulations and guidelines. Your state may have its own lead program and different regulations. For more information, contact NLIC at **1-800-424-LEAD** or visit **http://www.epa.gov/lead**.

While paint chip sampling followed by laboratory analysis is generally more accurate than XRF testing, sampling and analysis take longer to complete and paint chips must be scraped from many surfaces in the home. In some cases, a surface may be curved or so deteriorated that an XRF cannot be used properly and sampling may be the only way to test the paint.

Q: What Do The Results Of Paint Testing Mean?

A: A certified lead-based paint professional will use guidance specific for each type of XRF analyzer to determine whether a measurement indicates that:

- Lead-based paint is present,
- Lead-based paint is not present, or
- The measurement is inconclusive and a laboratory test is necessary.

The guidance ensures the XRF measurement classifies paint as lead-based when there is 1.0 milligram of lead per square centimeter of painted surface or greater (1.0 mg/cm^2). An XRF analyzer typically reads in mg/cm^2, meaning milligrams per square centimeter.

When the paint chip sampling followed by laboratory analysis method is used, the federal definition of lead-based paint is dependent on how the results are reported.

- If the laboratory report is expressed as weight of lead per weight of paint chip, the federal definition of lead-based paint is 0.5 percent lead (0.5%). This is mathematically the same as 5,000 milligrams of lead per kilogram of

Federal Definition Of Lead-Based Paint Depends On How Test Results Are Reported	
How Test Results Are Reported	**Federal Definition Of Lead-Based Paint**
If results are reported as percent (or equivalent)	Then, in order for it to be considered lead-based paint, the paint must have greater than or equal to 0.5% (which is the same as 5,000 µg/g or 5,000 mg/kg or 5,000 ppm) lead
If results are reported as milligrams per square centimeter	Then, in order for it to be considered lead-based paint, the paint must have greater than or equal to 1 mg/cm^2 lead

paint chip (5,000 mg/kg), or 5,000 micrograms of lead per gram of paint chip (5,000 µg/g), or 5,000 parts per million lead (5,000 ppm).

- If the laboratory report is expressed as a weight of lead per unit area of painted surface, the federal definition of lead-based paint is 1.0 mg/cm^2 (the same as for XRF analysis).

It is possible to report laboratory results in both types of units, but this is rarely done because of the additional time and work required.

Unfortunately, there is no universal definition of lead-based paint. Some state and local governments have definitions of lead-based paint which differ from those in federal law. It is recommended that when there is a conflict between the federal definition and a state or local definition, the more stringent standard (that is, the lower number) be used to define lead-based paint. A certified lead-based paint professional (certified Inspector or certified Risk Assessor) will be aware of and will follow the appropriate standard.

Q: What If No Lead-Based Paint Is Found In My Home?

A: Lead can still be present in paint which is not classified as "lead-based." This would occur when the paint has a lower amount of lead than the federal government regulates. If lead is present in the paint, lead dust can be released when the paint deteriorates, or is disturbed during remodeling, renovation,

sanding, or some maintenance work that breaks the surface of the paint. This is especially important in homes built before 1978. Since the amount of lead in paint was limited by federal regulation in 1978, lead exposure during remodeling and renovation is not as much a concern in newer homes. So you should be careful when there is work that involves extensive breaking of painted surfaces in a home built before 1978. Make sure any dust and debris created by breaking painted surfaces are thoroughly cleaned up, painted surfaces are repaired and left intact when the work is done, and children stay away from the work areas until all repairs and clean-up are completed.

The EPA brochure *Reducing Lead Hazards When Remodeling Your Home* provides guidelines for renovating and remodeling your home. See page 16 for more information on how to order the brochure.

Q: How Are Dust Samples Collected And Analyzed?

A: The most common method for dust collection is a surface wipe sample. Most certified Risk Assessors will use baby wipes or wet wipes to collect dust.

If dust is collected from a floor, an area of one square foot is usually sampled. The area is wiped several times in different directions to pick up all the dust. After sampling, the wipe is placed in a container and sent to a laboratory for analysis. The certified Risk Assessor will also collect wipe samples from windows and measure the surface area wiped.

In some situations, special types of vacuum samplers may be used for dust collection. These are different from home vacuum cleaners, although some may look the same.

The certified lead-based paint professional must send dust samples to a laboratory recognized by EPA's NLLAP that is proficient for dust analysis. This publication addresses federal regulations and guidelines. Your state may have its own lead program and different regulations. For more information, contact NLIC at **1-800-424-LEAD** or visit **http://www.epa.gov/lead**.

Q: What Do The Results Of Dust Sampling Mean?

A: Dust sample results are usually expressed as a weight of lead per unit area of surface. The units will usually be micrograms of lead per square foot. For example, a floor wipe sample may be expressed as 50 micrograms of lead per square foot. This is written as 50 $\mu g/ft^2$. The certified lead-based paint professional will provide guidance in interpreting the results of the dust testing.

Q: How Are Soil Samples Collected And Analyzed?

A: Soil samples are collected from bare soil areas (soil with no grass or other covering) near your home where children play and from bare soil areas near the house foundation or dripline. Optional sampling areas are gardens, pathways, and pet sleeping areas. Samples are collected by coring or scooping methods that take the top half-inch of soil. Samples of non-bare soil may sometimes be collected.

Soil samples must be sent to a laboratory recognized by EPA's NLLAP that is proficient in soil analysis. This publication addresses federal regulations and guidelines. Your state may have its own lead program and different regulations. For more information, contact NLIC at **1-800-424-LEAD** or visit **http://www.epa.gov/lead**.

Q: What Do The Results Of Soil Testing Mean?

A: Results of soil samples are expressed as a weight of lead per unit weight of soil, usually in parts per million. For example, a soil sample result may be 300 parts per million. This is written 300 ppm. The certified lead-based paint professional will help you interpret the results of the soil testing.

Q: What Are Composite Samples?

A: Composite samples are combinations of individual samples analyzed together in a laboratory to obtain a single average result. Both dust and soil samples may be composited. For example, a floor dust sample may be collected in each of three rooms and combined to obtain one composite dust sample to be analyzed by the laboratory. Or four soil samples taken in a play area may be combined to obtain one composite soil sample. Paint samples may also be composited, but this is not as common as compositing dust and soil samples.

Composite samples may often be used in risk assessments and lead hazard screens to reduce the cost of laboratory analysis or to increase the representativeness of a single sample. The disadvantage of composite samples is that information is not available for each room (or location) from which samples were collected.

The certified Risk Assessor will interpret composite sample results, if any. The advantage of composite samples is that information is obtained at reduced cost or more samples are collected for the same cost.

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Section 3

Miscellaneous Questions Frequently Asked About Testing

Q: What Are Home Test Kits?

A: Home test kits are used in the home to detect lead in paint, soil, and dust (and, in some cases, water, dishware, glasses, and ceramics). A reaction occurs causing a color change when chemicals in the kit are exposed to lead.

Q: Does EPA Recommend Test Kits For Paint, Dust, Or Soil Testing?

A: No. EPA does not currently recommend home test kits to detect lead in paint, dust, or soil. Studies show that these kits are not reliable enough to tell the difference between high and low levels of lead. At this time, the kits are not recommended for testing performed by either homeowners or certified lead-based paint professionals.

Q: May I Collect Paint, Dust, And Soil Samples Myself And Send Them To A Laboratory?

A: You may do this, although your samples may not be of the same quality as those collected by a certified lead-based paint professional. If you want to collect samples yourself, it is recommended that you send paint, dust, or soil samples to a laboratory recognized by EPA's NLLAP. A list of NLLAP laboratories is available from NLIC by calling **1-800-424-LEAD**. If the samples contain high levels of lead, you should have a certified lead-based paint professional do a risk assessment of your home.

Q: What About Testing For Lead In Water?

A: Lead pipes and lead solder were once used in plumbing and lead leaked into drinking water. Water testing is not routinely conducted by certified lead-based paint testing professionals, but you may ask for it as an optional service. If you

would like information about testing for lead in water, call the EPA Drinking Water Hotline at **1-800-426-4791**.

Q: What About Testing For Lead In Furniture, Dishware, And Mini-Blinds?

A: Lead may be present in the paint on furniture. If the furniture is old or the paint is damaged, you may want to have it tested. A certified Inspector or certified Risk Assessor may do this testing for you.

Lead may also be present in some glassware (for example, lead crystal) and in glazes found on ceramic ware. The lead may be absorbed into the drink and food stored in these items.

Contact NLIC at **1-800-424-LEAD** or the Food and Drug Administration (FDA) Food Information Line at **1-800-FDA-4010** for information on testing glassware and ceramics or access the FDA webpage at **http://vm.cfsan.fda.gov/~dms/lead.html#advice**.

The Consumer Product Safety Commission (CPSC) has issued a warning that some mini-blinds may contain lead. For further information, contact the CPSC hotline at **1-800-638-2772** or access the CPSC webpage at **http://www.cpsc.gov/cpscpub/prerel/prhtml96/96150.html**.

Contacts For Further Information:

Topic	Agency	Contact Information
Testing ceramic ware and related items	Food and Drug Administration (FDA) Food Information Line	1-800-FDA-4010 http://vm.cfsan.fda.gov/~dms/lead.html#advice
Information on lead in mini-blinds	Consumer Product Safety Commission (CPSC)	1-800-638-2772 http://www.cpsc.gov/cpscpub/prerel/prhtml96/96150.html
State lead programs and regulations, Current list of NLLAP laboratories, Lead brochures and fact sheets, General lead hazard information	National Lead Information Center (NLIC)	1-800-424-LEAD OR for the hearing impaired 1-800-877-8339 http://www.epa.gov/lead/nlic.htm
EPA and HUD related web sites	Environmental Protection Agency Housing and Urban Development	http://www.epa.gov/lead http://www.hud.gov/lea
Information on testing drinking water for lead	EPA Drinking Water Hotline	1-800-426-4791
Information on state and territory lead professional and contractor certification and licensing	EPA Regional Offices Region 1 CT, ME, MA, NH, RI, VT Region 2 NJ, NY, PR, VI Region 3 DE, DC, MD, PA, VA, WV Region 4 AL, FL, GA, KY, MS, NC, SC, TN Region 5 IL, IN, MI, MN, OH, WI Region 6 AR, LA, NM, OK, TX Region 7 IA, KS, MO, NE Region 8 CO, MT, ND, SD, UT, WY Region 9 AS, AZ, CA, GU, HI, NV, NP Region 10 AK, ID, OR, WA	 1-617-918-1524 1-732-321-6671 1-215-814-2084 1-404-562-8998 1-312-886-7836 1-214-665-7577 1-913-551-7518 1-303-312-6021 1-415-744-1069 1-206-553-1985

Additional Reading:

These brochures and fact sheets can be obtained by calling NLIC at **1-800-424-LEAD** or visiting **http://www.epa.gov/lead**.

Buying A Home? Here's What You Need To Know About Lead-Based Paint, EPA brochure, EPA publication number EPA 747-F-99-001 (January 2000).

Lead In Your Home: A Parent's Reference Guide, EPA brochure, EPA publication number EPA 747-B-99-003 (May 1999).

Protect Your Family From Lead In Your Home, EPA/CPSC/HUD brochure, EPA publication number EPA 747-K-99-001 (April 1999).

Reducing Lead Hazards When Remodeling Your Home, EPA brochure, EPA publication number EPA 747-K-97-001 (September 1997).

Runs Better Unleaded: How to Protect Your Children from Lead Poisoning, EPA brochure, EPA publication number EPA 747-F-99-005A (August 1999).

Selecting a Laboratory for Lead Analysis: The EPA National Lead Laboratory Accreditation Program, EPA brochure, EPA publication number EPA 747-F-99-002 (April 1999).

The Lead-Based Paint Pre-Renovation Education Rule, EPA handbook, EPA publication number EPA 747-B-99-004 (September 1999).

Disclosure of Lead-Based Paint Hazards in Housing, EPA/HUD fact sheet, EPA publication number EPA 747-F-96-002 (March 1996).

United States
Environmental Protection
Agency

EPA 747-B-99-004
September 1999

Pollution Prevention and Toxics (7404)

EPA

The Lead-Based Paint Pre-Renovation Education Rule

a handbook for contractors, property managers, and maintenance personnel

LEAD Awareness Program

What Is The Lead-Based Paint Pre-Renovation Education Rule (Lead PRE)?

- The Lead PRE Rule is a Federal regulation affecting construction contractors, property managers, and others who perform **renovations** for **compensation** in residential housing that may contain lead-based paint.
- It applies to residential houses and apartments built before 1978.
- It requires distribution of the **lead pamphlet**, *Protect Your Family from Lead in Your Home*, to the owners and occupants before starting **renovation** work.
- **Renovation** includes most repair, remodeling, and maintenance activities that disturb painted surfaces.
- Lead PRE implements Section 406(b) of the Toxic Substances Control Act (TCSA).

About This Handbook

- This handbook summarizes Lead PRE and how to comply with it. To ensure compliance, you should also read the rule.
- Key terms are highlighted in **bold** and are explained on pages 8-10.

Who Should Read This Handbook?

- Anyone who owns or manages housing built before 1978.
- Contractors who perform **renovations** (including certain repairs and maintenance) which disturb paint in homes built before 1978.

How Can This Handbook Help Me?

- This handbook presents simple steps to follow to comply with Lead PRE. It also lists ways these steps can be easily incorporated into your work.
- Having demonstrated knowledge of lead requirements and safety practices can mean more business for you.
- Distributing the **lead pamphlet** to your customers and tenants can help them protect themselves and their children from the hazards of lead-based paint.
- This handbook describes the law. It also explains the proper steps to take to avoid potentially significant civil (monetary) and criminal fines and penalties.

What Does Lead PRE Require Me To Do?

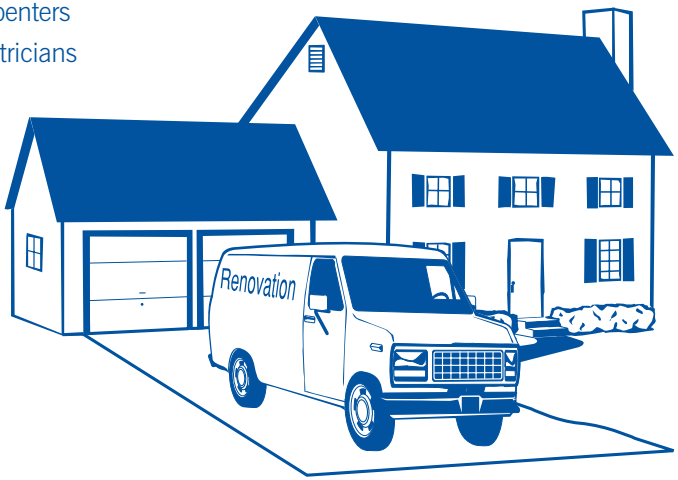
1. Distribute a **lead pamphlet** to the housing **owner** and occupants before **renovation** starts.
2. Obtain **confirmation of receipt of lead pamphlet** (see page 11) from owner and occupants or a **certificate of mailing** from the post office.
3. For work in **common areas** of **multi-family housing**, distribute **renovation notices** to tenants.
4. Retain records for 3 years.

(See page 4 for more details)

Who Must Follow These Requirements?

In general, anyone whose compensated work disturbs paint in housing built before 1978, including:

- Residential rental property owners/managers
- **General contractors**
- **Special trade contractors**, including
  - Painters
  - Plumbers
  - Carpenters
  - Electricians



What Types Of Activities Are Subject To Lead PRE?

In general, any activity that disturbs paint in pre-1978 housing, including:

- Remodeling and repair/maintenance
- Plumbing
- Carpentry
- Electrical work
- Painting
- Window replacement

What Housing Or Activities Are Excluded From Lead PRE?

- Housing built in 1978 or later
- **Housing for the elderly** or disabled persons (unless children will reside there)
- **Zero-bedroom dwellings** (studio apartment, dormitories, etc.)
- Housing or **components** declared lead-free by a **certified inspector** or **risk assessor**
- **Emergency renovations** and repairs
- **Minor repairs and maintenance** that disturb two square feet or less of paint per **component**

Lead PRE At-A-Glance

If you will be working for **compensation** in a pre-1978 home or apartment building, answer the questions below to determine if Lead PRE requires you to give the **lead pamphlet** to the **owner** and occupants.

Does this job involve **renovations** which disturb painted surfaces?

NO → **Lead PRE Does Not Apply**

YES

Are ANY of the following conditions present?

- The work is an **emergency renovation**
- The work is a **lead abatement** project
- The work consists of **minor repairs or maintenance** that disturbs 2 square feet or less of painted surfaces
- The housing or its **components** have been determined to be lead-based paint free by a **certified inspector** or **risk assessor**
- The housing is a **zero-bedroom dwelling** (studio apartments, dormitories, etc.)
- The housing is **housing for the elderly** or disabled AND children are not expected to reside there

YES → **Lead PRE Does Not Apply**

If Any Yes

NO

If All No

If no, then you need to provide the lead pamphlet (see page 4).

How Do I Meet The Lead PRE Requirements?

Renovation Location	Procedures to Follow
Renovations in Owner-Occupied Dwelling Units	Box 1 Deliver **lead pamphlet** to **owner** before **renovation** begins and obtain **confirmation of receipt**. **OR** Mail lead pamphlet to owner 7 days before renovation begins and document with **certificate of mailing**
Renovations in Tenant-Occupied Dwelling Units	Box 2 1. Provide **lead pamphlet** to **owner** using either procedure described in Box 1 above. 2. Provide lead pamphlet to tenant by either method below: (a) Deliver pamphlet to dwelling unit before **renovation** begins and document delivery with either a **confirmation of receipt** of lead pamphlet or a **self-certification of delivery**. **OR** (b) Mail lead pamphlet to tenant at least 7 days prior to renovation and document with a **certificate of mailing**
Renovations in Common Areas of Multi-Family Housing Units	Box 3 1. Provide **owner** with **lead pamphlet** using either procedure described in Box 1 above. 2. Notify tenants and make pamphlet available. 3. Maintain written documentation describing notification procedures. 4. Provide **supplemental renovation notice** if changes occur in location, timing, or scope of renovation occurring.

For all options keep records for 3 years after renovation is completed.
(Sample Forms on pages 11 and 12.)

Special Circumstances

Is painting considered renovation, even if no surface preparation activity occurs?

No. If the surface to be painted is not disturbed by sanding, scraping, or other activities that may cause dust, the work is not considered renovation and Lead PRE does *not* apply.

What if I renovate my own home?

Lead PRE applies only to **renovations** performed for **compensation**; therefore, if you work on your own home Lead PRE does not apply.

Is a renovation performed by a landlord or employees of a property management firm considered a compensated renovation under Lead PRE?

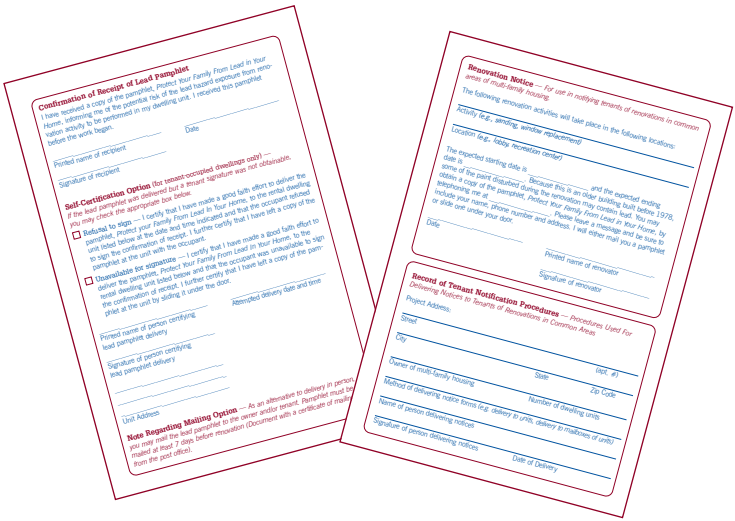
Yes. The receipt of rent payments or salaries derived from rent payments is considered **compensation** under Lead PRE. Therefore, **renovation** activities performed by landlords or employees of landlords are covered.

Do I have to give out the lead pamphlet 7 days prior to beginning renovation activities?

The 7-day advance delivery requirement applies only when you deliver the **lead pamphlet** via mail; otherwise, you may deliver the pamphlet *anytime* before the **renovation** begins. Note, however, that the renovation must begin within 60 days of the date that the pamphlet is delivered. So for example, if your renovation is to begin May 30, you may deliver the pamphlet in person anytime between April 1 and start of the project on May 30, or you may deliver the pamphlet via mail anytime between April 1 and May 23.

Tips For Easy Compliance

1. Copy and use the sample forms on pages 11 and 12 of this handbook.
2. Attach the forms to the back of your customer **renovation** or repair contracts. The completed forms can be filed along with your regular paperwork.
3. If a tenant is not home or refuses to sign the form, you may use the "self-certification" section of the form *(on page 11)* to prove delivery. This will reduce your paperwork.
4. Plan ahead to obtain enough copies of the **lead pamphlet**.



Where Can I Obtain More Information on Lead PRE?

Further information is available from the National Lead Information Clearinghouse (800-424-LEAD) or through the Internet (www.epa.gov/lead). Available resources include:

- Full text version of Lead PRE
- Interactive software which guides the users through the Lead PRE requirements on a step-by-step basis *(available in late June)*
- Interpretive guidance which provides more detailed information on Lead PRE requirements

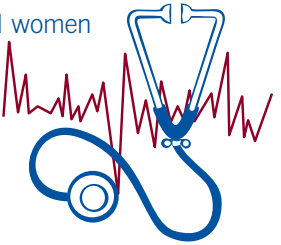
Why is Lead Paint Dangerous?

People can ingest lead by breathing or swallowing lead-based paint dust or by eating lead-contaminated soil or lead-based paint chips. Household animals are also at risk.

If not detected early, high levels of lead in a child can cause serious effects, including:

- Damage to the brain and nervous system
- Behavior and learning problems
- Slowed growth
- Hearing problems
- Headaches

Lead is also harmful to adults and can, among other effects, cause:



- Difficulties during pregnancy
- Other reproductive problems for men and women
- High blood pressure
- Digestive problems
- Nerve disorders
- Memory and concentration problems
- Muscle and joint pain

Lead can be dangerous to workers and their families if the worker brings equipment and clothing home after a job.

Other Resources

For additional information on how to protect yourself and your customers from lead paint hazards, call the National Lead Information Clearinghouse at 1-800-424-LEAD. Available documents include:

- *Lead-Based Paint: Operations and Maintenance Work Practices Manual for Homes and Buildings*
- *Lead Safety for Property Owners, Developers, and Managers*
- *Reducing Lead Hazards When Remodeling Your Home*
- *Lead in Your Home: A Parents' Reference Guide*
- *Lead Paint Safety: A Field Guide for Painting, Home Maintenance, and Renovation Work*

Key Terms

Certificate of Mailing — written verification from the Postal Service that you mailed the lead pamphlet to an owner or a tenant. This is less expensive than certified mail, which is also acceptable for meeting Lead PRE requirements. *(**Note:** If using this delivery option, you must mail the pamphlet at least 7 days prior to the start of renovation.)*

Certified Inspector or Risk Assessor — an individual who has been trained and is certified by EPA or an authorized state or Indian Tribe to conduct lead-based paint inspections or risk assessments.

Common Area — a portion of a building that is generally accessible to all residents or users. Common areas include (but are not limited to) hallways, stairways, laundry rooms, recreational rooms, playgrounds, community centers, and fenced areas. The term applies to both interiors and exteriors of the building. *(**Note:** Lead PRE requirements related to common areas apply only to multi-family housing.)*

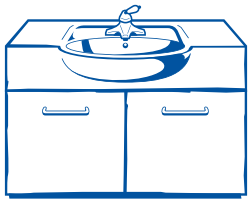
Compensation — payment or goods for services rendered. Payment can be in the form of money, goods, or services (bartering).

Component — specific design or structural element or fixture distinguished by its form, function, and location. A component can be located inside or outside the dwelling.

Examples

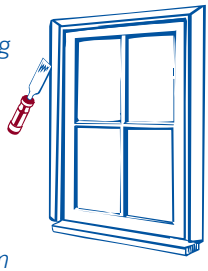
Interiors

Ceilings
Crown molding
Walls
Doors and trim
Floors
Fireplaces
Radiators
Shelves
Stair treads
Windows and trim
Built-in cabinets
Beams
Bathroom vanities
Counter tops
Air conditioners



Exterior

Painted roofing
Chimneys
Flashing
Gutters and downspouts
Ceilings
Soffits
Doors and trim
Fences
Floors
Joists
Handrails
Window sills and sashes
Air conditioners



Confirmation of Receipt of Lead Pamphlet — a form that is signed by the owner or tenant of the housing confirming that they received a copy of the lead pamphlet before the renovation began. *(See sample on page 11.)*

Key Terms (continued)

Emergency Renovation — unplanned renovation activities done in response to a sudden, unexpected event which, if not immediately attended to presents a safety or public health hazard, or threatens property with significant damage.

Examples 1: *Renovation to repair damage from a tree that fell on a house*
2: *Renovation to repair a water pipe break in an apartment complex*

General Contractor — one who contracts for the construction of an entire building or project, rather than for a portion of the work. The general contractor hires subcontractors (e.g. plumbing, electrical, etc.), coordinates all work, and is responsible for payment to subcontractors.

Housing for the Elderly — retirement communities or similar types of housing specifically reserved for households of one or more persons 62 years of age or older at the time the unit is first occupied.

Lead Abatement — work designed to permanently eliminate lead-based paint hazards. If you are hired to do lead-abatement work only, Lead PRE does not apply. Abatement does not include renovation, remodeling, landscaping, or other activities done to repair, restore, or redesign a given building — even if these activities incidentally reduce lead-based paint hazards. *(**Note:** Some states define this term differently than described above. Consult your state officials if you are not sure how "lead abatement" is defined in your state.)*

Lead Pamphlet — the pamphlet *Protecting Your Family From Lead in Your Home,* or an EPA-approved alternative pamphlet. *(See page 13 for information on obtaining copies.)*

Minor Repair and Maintenance — minor repair and maintenance activities, such as minor electrical work or plumbing, that disturb two square feet or less of painted surface per component.

Examples 1: *Drilling holes in the wall to run an electrical line*
2: *Replacing a piece of window trim*
3: *Replacing a light fixture*

Multi-family Housing — housing property consisting of more than four dwelling units.

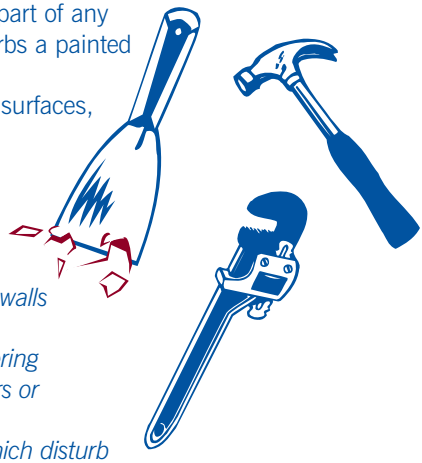
Owner — any person or entity that has legal title to housing, including individuals, partnerships, corporations, government agencies, Indian Tribes, and nonprofit organizations.

Record of Notification — written statement documenting the steps taken to notify occupants of renovation activities in common areas of multi-family housing. *(See page 12 for sample.)*

Key Terms (continued)

Renovation — modification of all or part of any existing structure in housing that disturbs a painted surface. Includes:

- Removal/modification of painted surfaces, components, or structures
- Surface preparation activities (sanding/scraping/other activities that may create paint dust)
- Window replacement



Examples 1: *Demolition of painted walls or ceilings*

2: *Large surface replastering*

3: *Major plumbing repairs or improvements*

4: *Any other activities which disturb painted surfaces*

Renovation Notice — notice to tenants of renovations in common areas of multifamily housing. *(See sample form on page 12.)* Notice must describe nature, location, and expected timing of renovation activity; and must explain how the lead pamphlet may be obtained free of charge.

Renovator — a person who performs for compensation a renovation, as defined above. *(**Note:** Because the term "renovation" is defined broadly by Lead PRE, many contractors who are not generally considered to "renovators," as that term is commonly used, are considered to be "renovators" under Lead PRE, and must follow Lead PRE requirements.)*

Self-Certification of Delivery — an alternative method of documenting delivery of the lead pamphlet to a tenant. This method may be used whenever the tenant is unavailable or unwilling to sign a confirmation of receipt of lead pamphlet. *(See sample form on page 11.)* (***Note:** This method is not a permissible substitute for delivery of the lead pamphlet to an owner.)*

Special Trade Contractors — individuals or companies performing work in specialized occupations such as painting, electrical work, plumbing, or carpentry.

Supplemental Renovation Notice — additional notification that is required when the scope, location, or timing of project changes.

Zero-Bedroom Dwelling — any residential dwelling where the living area is not separated from the sleeping area. This term includes efficiency and studio apartments, dormitory housing, and military barracks.

Sample Forms

The forms on the next two pages are sample forms you can use to make documentation of compliance easier.

Confirmation of Receipt of Lead Pamphlet

I have received a copy of the pamphlet, *Protect Your Family From Lead in Your Home*, informing me of the potential risk of the lead hazard exposure from renovation activity to be performed in my dwelling unit. I received this pamphlet before the work began.

_____ _____

Printed name of recipient Date

_____

Signature of recipient

Self-Certification Option (for tenant-occupied dwellings only) — *If the lead pamphlet was delivered but a tenant signature was not obtainable, you may check the appropriate box below.*

☐ Refusal to sign — I certify that I have made a good faith effort to deliver the pamphlet, *Protect your Family From Lead In Your Home,* to the rental dwelling unit listed below at the date and time indicated and that the occupant refused to sign the confirmation of receipt. I further certify that I have left a copy of the pamphlet at the unit with the occupant.

☐ Unavailable for signature — I certify that I have made a good faith effort to deliver the pamphlet, *Protect Your Family From Lead In Your Home,* to the rental dwelling unit listed below and that the occupant was unavailable to sign the confirmation of receipt. I further certify that I have left a copy of the pamphlet at the unit by sliding it under the door.

_____ _____

Printed name of person certifying lead pamphlet delivery Attempted delivery date and time

_____

Signature of person certifying lead pamphlet delivery

_____

_____

_____

Unit Address

Note Regarding Mailing Option — *As an alternative to delivery in person, you may mail the lead pamphlet to the owner and/or tenant. Pamphlet must be mailed at least 7 days before renovation (Document with a certificate of mailing from the post office).*

Sample Forms (continued)

Renovation Notice — *For use in notifying tenants of renovations in common areas of multi-family housing.*

The following renovation activities will take place in the following locations:

_____

Activity *(e.g., sanding, window replacement)*

_____

Location *(e.g., lobby, recreation center)*

The expected starting date is _____ and the expected ending date is _____. Because this is an older building built before 1978, some of the paint disturbed during the renovation may contain lead. You may obtain a copy of the pamphlet, *Protect Your Family From Lead in Your Home*, by telephoning me at _____. Please leave a message and be sure to include your name, phone number and address. I will either mail you a pamphlet or slide one under your door.

_____ _____

Date Printed name of renovator

_____

Signature of renovator

Record of Tenant Notification Procedures — *Procedures Used For Delivering Notices to Tenants of Renovations in Common Areas*

Project Address:

_____

Street (apt. #)

_____

City State Zip Code

_____

Owner of multi-family housing Number of dwelling units

_____

Method of delivering notice forms *(e.g. delivery to units, delivery to mailboxes of units)*

_____

Name of person delivering notices

_____

Signature of person delivering notices Date of Delivery

Where Can I Get Copies of the **Lead Pamphlet**?

For single copies of *Protect Your Family From Lead in Your Home* (in Spanish or English), call the National Lead Information Clearinghouse (NLIC) at 1-800-424-LEAD. For any orders, be sure to use the stock reference number **EPA747-K-99-001**.

There are four ways to get multiple copies:

1. **Call the Government Printing Office order desk at (202) 512-1800.**
2. **Send fax requests to (202) 512-2233.**
3. Request copies in writing from:

   Superintendent of Documents
   P.O. Box 371954
   Pittsburgh, PA 15250-7954
4. **Obtain via the Internet at www.epa.gov/lead**

Single copies are available at no charge. Bulk copies available in packs of 50.

The pamphlet may be photocopied for distribution as long as the text and graphics are readable. Camera-ready copies are available from NLIC or via the Internet.

The Lead Pre-Renovation Education Rule (Lead PRE) At-A-Glance

If you will be working for **compensation** in a pre-1978 home or apartment building, answer the questions below to determine if Lead PRE requires you to give the **lead pamphlet** to the **owner** and occupants.

Does this job involve **renovations** which disturb painted surfaces?

NO → **Lead PRE Does Not Apply**

YES

Are ANY of the following conditions present?

- The work is an **emergency renovation**
- The work is a **lead abatement** project
- The work consists of **minor repairs or maintenance** that disturbs 2 square feet or less of painted surfaces
- The housing or its **components** have been determined to be lead-based paint free by a **certified inspector** or **risk assessor**
- The housing is a **zero-bedroom dwelling** (studio apartments, dormitories, etc.)
- The housing is **housing for the elderly** or disabled AND children are not expected to reside there

YES → **Lead PRE Does Not Apply**

If Any Yes

NO *If All No*

If no, then you need to read this book! Rental property owners and managers, renovators, and maintenance personnel are affected by Lead PRE.

Bold Type = Key Terms (see pages 8–10 inside)

TAB 3

Certifications
Risk Assessor
PBS Engineering + Environmental
Analytical Laboratory

STATE OF WASHINGTON

Department of Commerce

Lead-Based Paint Program

Janet J. Murphy

Has fulfilled the certification requirements of Washington Administrative code (WAC) 365-230 and has been certified to conduct lead-based paint activities pursuant to WAC 365-230-200 as a:

Risk Assessor

Certification #	Issuance Date	Expiration Date
0258	3/8/2010	3/8/2013

STATE OF WASHINGTON

Department of Commerce

Lead-Based Paint Program

PBS Engineering & Environmental

Has fulfilled the certification requirements of Washington Administrative code (WAC) 365-230 and has been certified to conduct lead-based paint activities pursuant to WAC 365-230-200:

Certification #	Issuance Date	Expiration Date
0178	7/14/2010	9/3/2013

AIHA
Laboratory Accreditation Programs, LLC

AIHA Laboratory Accreditation Programs, LLC

acknowledges that

NVL Laboratories, Inc.

4708 Aurora Avenue North, Seattle, WA 98103

Laboratory ID: 101861

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories in t*he following:

LABORATORY ACCREDITATION PROGRAMS

✓	**INDUSTRIAL HYGIENE**	Accreditation Expires: 05/01/2013
✓	**ENVIRONMENTAL LEAD**	Accreditation Expires: 05/01/2013
✓	**ENVIRONMENTAL MICROBIOLOGY**	Accreditation Expires: 05/01/2013
☐	**FOOD**	Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Christine Powell

Christine Powell

Chairperson, Analytical Accreditation Board

Cheryl O. Morton

Cheryl O. Morton

Director, AIHA Laboratory Accreditation Programs, LLC

Revision 10: 01/13/2011

Date Issued: 05/01/2011

AIHA

Laboratory Accreditation Programs, LLC

AIHA Laboratory Accreditation Programs, LLC
SCOPE OF ACCREDITATION

NVL Laboratories, Inc.
4708 Aurora Avenue N., Seattle, WA 98103

Laboratory ID: **101861**
Issue Date: 05/24/2011

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or revocation. A complete listing of currently accredited Environmental Lead laboratories is available on the AIHA-LAP, LLC website at: http://www.aihaaccreditedlabs.org

The EPA recognizes the AIHA-LAP, LLC ELLAP program as meeting the requirements of the National Lead Laboratory Accreditation Program (NLLAP) established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis. Air analysis is not included as part of the NLLAP.

Environmental Lead Laboratory Accreditation Program (ELLAP)

Initial Accreditation Date: 02/07/1997

Field of Testing (FoT)	Method	Method Description *(for internal methods only)*
Paint	16 CFR Part 1303 (CPSC-CH-E1003-09)	
	EPA SW-846 3051	
	EPA SW-846 7000B	
Soil	EPA SW-846 3051	
	EPA SW-846 7000B	
Settled Dust by Wipe	EPA SW-846 3051	
	EPA SW-846 7000B	
Airborne Dust	EPA SW-846 3051	
	NIOSH 7082	

The laboratory participates in the following AIHA-LAP, LLC-approved proficiency testing programs:

- ✓ Paint
- ✓ Soil
- ✓ Settled Dust by Wipe
- ✓ Airborne Dust